



**ESIC MEDICAL COLLEGE AND PGIMSR
KKNAGAR, CHENNAI**

Wissendurst'22

ABSTRACT BOOK

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Dean's Message



Prof. Sowmya Sampath MD (Paeds), DNB (Paeds)

Dean

Greetings to all the participants of the second iteration of WISSENDURST, the intercollege academic conference hosted by ESIC Medical College and PGIMSR, KK Nagar, Chennai. As we slowly recover from the devastating COVID 19 and slowly move back to normal life, we take this opportunity to invite you all for two days of academic and creative exchange at our institution. Training the doctors of the future is one of the most noble tasks that we have, and we hope that this conference will help you come together with people from various colleges, network, exchange knowledge, ideas and grow.

The COVID 19 pandemic has taught us that we should not take for granted the time, opportunities to learn and good health and wellbeing that most of us enjoy. The two years that students were locked up in their homes, glued to the mobile and laptop screens attending online classes, away from friends, teachers and most importantly patients, has reinforced in us a renewed conviction that there is no better way to learn medicine than at the patients' bedside. We all craved for human connection and now that it is possible, we are taking the opportunity to bring medical students from various colleges together for an academic fest.

WISSENDURST '19 was a successful event with active participation from various colleges in and around Chennai. We received encouraging feedback and constructive critique. We have worked on them, and our organizing team has once again put together an interesting WISSENDURST '22. This time, it is a two-day

program and the scope of the events have been widened. The exciting additions are the Minerva quiz, the interesting workshops and case presentations.

How much we achieve and how far we go in our career largely depends on how much and how well we learn from our past. The past teaches us about the mistakes which we made so that we don't repeat them and the good things that we did, which can be repeated to enhance our successes. History helps us relate to the culture and traditions associated with the medical profession. This year we have a brilliant medical historian with us Dr. Mario Vaz, Professor of Physiology from the International Medical School, Ramiah Bangalore Campus. He will talk to us on the history of medicine over the years. This oration will leave us with much to reflect on the progress we have made in medicine over the years.

I once again welcome you all warmly to WISSENDURST '22 and wish you a successful conference. I hope that each one of you carry back with you good experiences, memories, and lot of learning. Spread the warmth and brightness of knowledge around you and multiply the happiness.

Prof. Sowmya Sampath MD (Paeds), DNB (Paeds)

Dean

Registrar's Message



Prof. S. Seethalakshmi MD (Pharm.)

Registrar

Professor and Head, Department of Pharmacology

We take great pleasure in welcoming you to our intercollege academic conference, WISSENDURST '22. Research is the key to solving complex problems in medicine. It is essential for medical students to learn the process of research. This conference provides the apt opportunity for medical students and postgraduates to learn from experts the process of conducting good quality research studies. It is not just enough of a student knows how to do good research. They should also know how best to present scientific research and communicate it effectively to a peer group. In this conference the students will have an opportunity through the oral paper presentations to try and communicate their research studies effectively. We invite you to make use of this opportunities to sharpen your research and scientific communication skills.

One feature that was not there last year but has been introduced this time is the case presentation sessions. Students will be presenting interesting and unique patients that they saw in their respective hospitals. Faculty mentors will discuss the cases in detail and help them learn the uniqueness of each case in greater detail after their presentations. This will greatly help improve the standards of clinical discussions by the students. It will also encourage them to take the learnings and experience forward to improve their clinical and analytical skills.

Dr. Arun Kumar Annamalai is a young medical entrepreneur, who is addressing the students in a Scientific Soapbox on the topic of Artificial Intelligence in medicine.

Application of Artificial Intelligence technologies are vast expanding today in medicine. They have applications in radiological imaging, pathological diagnosis, clinical decision making and even assisting in robotic surgeries. This Scientific Soapbox will leave us with several important issues to ponder.

It is heartwarming to see the positive response from students all over Chennai, around Chennai and even beyond. We are seeing that WISSENDURST is slowly becoming a regional conference with active participation from students of other states such as Karnataka, Kerala, Andhra Pradesh and Telangana. We wouldn't be surprised if in the future this became a national conference.

I once again wish you all a very happy and pleasant two days of the conference. Enjoy the warm hospitality of ESIC Medical College and come back for more next year!

Prof. S. Seethalakshmi MD (Pharm.)

Registrar

Professor and Head, Department of Pharmacology

Vice Principal's Message



Prof. Swapnatai Meshram

*Vice Principal,
Professor and Head, Department of Physiology*

Welcome to ESIC Medical College and PGIMSR, Chennai! We are glad to host the second WISSENDURST event, which is a grand inter-college academic meet. It is a pleasure to meet you all from different colleges with all your energy, enthusiasm and interest in learning and sharing knowledge.

The gastroenterology quiz is a very interesting and exciting event in this year's WISSENDURST. It is heartening to see so many students interested in participating in this quiz. Quizzing is an exciting way to learn medicine and your interest and enthusiasm is highly encouraging. We are certain that you will have as much fun as you will learn during your participation in the quiz.

Debating helps organize thought. It helps the debater to put oneself in different shoes and see issues from various points of view. Therefore, debating helps a person develop the critical abilities to question facts and information and engage with complex ideas. This year we have an exciting debate session lined up in WISSENDURST '22. The debate will stimulate the thoughts of the participants and get the creative juices flowing in your brains. Good debaters will be empathetic, compassionate, and strong-willed people who will take clear stands for the welfare of their patients. This will be a great opportunity for you to become good debaters.

As we slowly move out of the COVID 19 pandemic and its devastating consequences, it is time that we resume all our academic and creative activities and

also make up for lost time in the past 2 years. It is so heartening to see so many of you registered for the various events in WISSENDURST '22.

I would like to personally wish and congratulate all the faculty members of the organizing committee and all the student volunteers who have worked hard to put this whole show together. Their work and commitment is reflected in the quality of this conference.

I wish you all the very best and hope you have a productive learning experience!

Prof. Swapnatai Meshram

*Vice Principal,
Professor and Head, Department of Physiology*

Message from the Organizing Committee

It gives immense pleasure to welcome all the undergraduate and postgraduate students to the second edition of 'WISSENDURST - The Thirst for Wisdom', an academic intercollege event held by ESIC Medical College and PGIMSR, Chennai. After the previous year's enormous success, we have returned after a two year hiatus with renewed zeal and more in store. Conducting this year's WISSENDURST has been a challenging but rewarding experience. With the knowledge and feedback from the previous edition, we have worked on improving and raising our events to new heights and extending our reach to warmly receive students from outside Tamil Nadu.

Our college's passionate quiz club 'Beta Catenin' has initiated MINERVA, an inter-college quiz with the hope of offering an enjoyable learning experience. Through the quiz, we hope to encourage the invigorated quizzers and foster their talent. The previous WISSENDURST witnessed students testing their mettle as they battled out their wits in debate. With the help of our college's Speaker's Collective, an organisation of formidable debate enthusiasts which has only grown in number and prowess, we aim to provide an arena to pursue open minded discussions and exchange of ideas. 'MERAKI' is a common platform for sharing unique clinical experiences and promoting scientific research. It seeks to encourage the practice of clinical inquiry and nurture the scientist in every doctor. Medicine has evolved due to the innovations brought upon by researchers. This event seeks to identify such talents and acknowledge them. An exciting addition to WISSENSDURST 22 are the workshops formulated to expose young doctors to the world of clinical medicine and surgery. The electrocardiography workshop, conducted by the medicine department seeks to unravel critical techniques involved in this extensive craft. The surgery workshop aims to introduce young doctors to the art of suturing, and teach them how to apply it in a clinical setting. The microbiology workshop plans to impart students with knowledge on antimicrobial resistance and how to judiciously tackle this issue. The physiology workshop will demonstrate spirometry and how to interpret results. The clinical medicine workshop intends to teach young minds clinical reasoning, which is a much needed skill in clinical practice.

Through the 'scientific soapbox' seminar on 'Artificial Intelligence in Medicine' and the oration on the history of medicine, offered by Dr.Arunkumar Annamalai and

Dr. Mario Vaz respectively, we hope to offer you two contrasting but interlinked facets of medicine. Although medicine has evolved enormously, the underlying ethical endeavor - the alleviation of human suffering is a constant.

This booklet has been concocted to provide a brief insight into WISSENDURST. The featured essay and poems are written to stir curiosity and open conversations for the scientist in everyone. We hope this booklet serves as a memoir for our event.

The prior WISSENDURST has been an invaluable wealth of knowledge and support during our venture to bring this year's events together, and it is our humble desire that we may be a stepping stone for the continued success for future editions for years to come. Moving forward, we wish to draw from our experiences conducting WISSENDURST and your constructive feedback. We are optimistic that we will all have a great time these two days.

WISSENDRUST '22 – Organizing Committee

Patron : **Dr. Sowmya Sampath**, Dean

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Dr. Swapnatai Meshram, Vice Principal

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Keerthana M, 3rd MBBS

WISSENDRUST '22 – Program Schedule

Date	Time	Event
02.09.2022	9 AM - 11 AM	Debate Prelims
02.09.2022	11.00 - 12.00 PM	Inaugural Ceremony
02.09.2022	1.30 - 4.00 PM	Oral Paper Presentation
02.09.2022	1.00 - 4.00 PM	Quiz Prelims
03.09.2022	9.00 - 11.00 AM	Workshops
03.09.2022	9.00 - 11.00 AM	Case Presentations
03.09.2022	11.30 - 12.30 PM	Scientific Soapbox – Artificial Intelligence in Medicine
03.09.2022	2.30 - 4.00 PM	Debate Finals
03.09.2022	4.00 - 5.00 PM	Oration – History of Medicine
03.09.2022	11.00 - 4.00 PM	Quiz Finals

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Information Asymmetry and its impact during the COVID 19 pandemic

Written by

Sabari Girish K, Arjun S, Sudiksha K R, Jeshma D

ESIC Medical College & PGIMSR, K K Nagar, Chennai - 78

We find ourselves in the midst of the worst health crisis of the twenty-first century: a pandemic on an unprecedented scale. The COVID 19 pandemic has disturbed global health from late 2019 and is still ongoing.(1) It has led to substantial loss of life and revealed the inherent weaknesses of even some of the strongest health care systems in the world. During this pandemic, one of the most important elements is the need for credible information on a timely basis. The World Health Organization (WHO) and other health agencies are working hard to keep people up to date on emerging information about the pandemic.(2) Misinformation is a consequence of the panic associated with the pandemic and the inherent information asymmetry between the health care team on one side, and people on the other.(3)

What is Information asymmetry?

Information asymmetry is a condition wherein one party in a relationship has more or better information than the other.(3) Considering a healthcare setting with the healthcare team on one end and patients on the other, the healthcare team has a better understanding about the structure and functioning of the human body and the genesis of the disease, whereas the people do not. While health care providers largely view the human body and its illnesses from a biomedical point of view, people perceive it through a broader psycho-social model. This is a major reason for the asymmetry. Furthermore, the resources that each of these groups use to obtain information are drastically different. Healthcare practitioners access peer-reviewed and scholarly sources for information. In contrast, patients usually get access to information from sources that lack accountability, and often tend to be inaccurate. Existing and emerging beliefs present in the various social groups are also factors that contribute to information asymmetry. Superstitious beliefs and other social factors like stigma mould the attitudes of people and influence the way information is obtained and interpreted. The social scenarios of patients determine their

behaviour. Even the kind of first aid that is given to a small wound varies drastically; the solutions and dressings that are applied on it, even the injection of tetanus toxoid that is given, vary drastically from an apartment colony to a village to an industrial park. Essentially, an information asymmetry leads on to behaviour asymmetry, trapping the health care provider and the patient in two different worlds.

With the spread of the internet and the subsequent blooming of online resources, there is a metamorphosis of information asymmetry between the health care providers and people. Internet sources that health care providers refer to are drastically different from those that people do. This is an asymmetry in itself leading to further asymmetries. On one hand, internet sources are readily available and cheap sources of what used to be a precious commodity - medical information. In some ways, it presents an opportunity to overcome the very source of the power dynamic. From a power perspective, the health care provider's role may never be overcome due to their ability to link medical factors with the social context and personal preferences of people, and to tailor efficient treatments and preventive strategies for each person. The clinical experience of the health care provider plays a pivotal role in analysing a scenario from multiple angles and linking them together to identify the most appropriate management.⁽⁴⁾ Even for educated people, access to relevant medical information doesn't overshadow being able to process it and make choices independent of their health care providers.

Why is information asymmetry problematic?

Information asymmetry is problematic on several counts. For instance, it is contributory to the power dynamic extant between health care providers and people. Medical encounters are drastically different affairs for patients and clinicians. Amongst other entities, patients weigh the financial burden and opportunity cost in terms of time and loss of pay against their perceived benefits from a potential clinical contact. Therefore, the information they need tends to be different from the information that the health care provider is comfortable providing. For example, a patient who has a hernia and needs to undergo surgery is more interested in knowing how much the surgery would cost in different hospitals, which technique is the most cost effective one, can he/she wait for some more time to have the procedure, for how many days he/she may have to take leave from their job etc.

However, the doctor may not be fully equipped to provide answers for these questions. This creates a divide between the health care providers and the people and results in seeking out treatment later, neglect of symptoms, and progression and disability due to potentially preventable diseases. Extending these arguments, information asymmetry worsens the problem of social injustice in health. There is a profound access inequality to healthcare with information inequality being key in its structure.(5)

Ethically, information asymmetry compromises the depth of informed consent. Consent for a prospective medical intervention, solicited without explaining the risks, benefits, alternative options and costs is not valid. In many cases, patients consent simply because they want to alleviate their suffering without fully understanding the information provided to them. The information asymmetry leads to poor understanding of the procedure, this keeps the patient skeptical and without full trust. This keeps the patient disengaged, which further impairs understanding and leads to poor trust. Information asymmetry perpetuates this cycle of poor understanding – inadequate trust – poor engagement.(6)

Information Asymmetry during the Pandemic

When the pandemic broke out, researchers all over the world were desperately trying to understand how the virus affects the body. At the time, there was much contestation over which drugs to administer to combat the virus and minimise complications. During such desperate times, it is understandable that there was a rush to discover anything to alleviate the anguish of the people. With rapid advancements in technology, people must have expected that it would only be a matter of time before such crucial information is uncovered. With the massive inflow of information desperate to plug this gap of uncertainty between the worlds of healthcare workers and the public, it is difficult to know which source can be credible and trusted. This is further amplified by the situational circumstances of this pandemic. In order to minimise the transmission of the virus and deal with the overwhelming numbers of those affected, people faced a massive plummeting in the time that is spent with the health care provider. Coupled with the requirement of personal protective equipment and the physical distance with which the physician must conduct themselves, it creates an alien environment that further invokes

anxiety and widens this gap by making the health care provider seem inaccessible and unapproachable.(7)

One example of information asymmetry during the COVID-19 pandemic was the treatment with convalescent plasma.(8) In 2020, there were preliminary reports that it may be helpful in treatment of patients with severe COVID 19. Information spread rapidly and the plasma of recovered patients was sold through the dark web as a cure for COVID 19. Subsequent research showed that plasma convalescent therapy has no effect on decelerating the disease progression and does not have an impact on death due to COVID 19.(9) Regardless, people flocked to obtain it. This is because information regarding these studies did not reach people as fast and effectively as the previously believed information about plasma therapy.

The eruption of Taal Volcano in the Philippines on January 12, 2020, was erroneously linked with the low number of COVID 19 cases in the country which stirred up speculations that the volcanic ash had antiviral properties. In March 2020, people in Sri Lanka were using red soaps and white handkerchiefs for protection following a misleading Facebook article. These claims were propagated and believed by the masses. In early April, a concoction of alkaloids, including nicotine and cocaine, was sold on the dark web as a potential cure for COVID 19. In April 2020, the then-American president, Donald Trump, put forward an imprudent suggestion of using Lysol, Dettol, and other disinfectants as a way to cleanse the body of the virus. Such statements, coming from a position of authority and influence, were readily accepted by some of the public, leading to lethal fatalities.

The pandemic brought forth a situation of immense uncertainty. States of vulnerability such as these further increase the deleterious impact of information asymmetry. This led to the spread of misinformation and the infodemic. Countries that were battling COVID 19 also had to battle this infodemic and provide people with credible information.

Increasing Health Literacy is the solution for Information Asymmetry

The most important strategy for managing the harmful effect of information asymmetry is increasing the 'health literacy' of people. The definition of health literacy given by the National Library of Medicine states, "Health literacy is the degree to which individuals have the capacity to obtain, process and understand

basic health information and services needed to make appropriate health decisions.”(10) Health literacy varies from person to person, and is impacted by cultural, political, ethical, environmental, and educational backgrounds. People with disabilities, the illiterate, and people who are socially isolated due to other factors are more vulnerable owing to their decreased ability to comprehend and convey health information. They have poorer health literacy and therefore are more vulnerable to the harmful effects of information asymmetry.(11) The responsibility of increasing the health literacy of people lies with the government and the people. Good quality education with emphasis on health and health care right from school years can greatly contribute to health literacy. Basic skills of identifying credible websites, sources of information online should be imparted to people. Finally, there should be a change in how people perceive their health. The final facet to health literacy is the reinforcement of health being an individual’s right, an idea that will invigorate them to pursue health information.(12)

Information asymmetry is not something that can be completely removed. It is inherent in the health care provider-people relationship. However, the COVID-19 pandemic has taught us that improving health literacy and enabling people to access credible sources of information is important to prevent harm and avoid panic. It is time now for us to build the health literacy of people so that we are armed to face any such future health catastrophe with a sense of level-headedness.

Acknowledgements

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Diabetes and its Impact on Mental Well-being- A Survey

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Introduction: Diabetes is a chronic metabolic disorder that affects major organs if left uncontrolled. Prolonged diabetes can cause rapid changes in mental wellbeing. If left untreated may result in anxiety and distress. **Objectives:** To analyse the underlying factors that contribute to decreased quality of life and low mental health among diabetic patients, identifying the potential factors that lead to low mental health which can help in the better management of the disorder. **Methods:** Questionnaire was prepared and administered to 100 diabetic patients attending diabetic clinic at Government Villupuram Medical College and Hospitals, Villupuram, after getting their informed consent for taking part in the study. Questions were prepared to analyse the mental wellbeing, which included their eating and sleeping pattern, anxiety levels, family's support, dieting and missing favourite food etc. Questions were prepared keeping the guidelines from CDC-Centres for Disease control and Prevention. The results were tabulated and statistically analysed and $p \text{ value} \leq 0.05$ was said to be statistically significant. **Result:** From the survey it was evident that significantly higher proportion of patients ($p \leq 0.05$) reported that they lost interest in their favourite activities, developed anxiety towards uncontrolled blood sugar, lack family's support, feel guilty when deviate diabetic routine, feel lonely when family enjoys a grand meal, anxious about children's future and often find it difficult to concentrate and take decisions. Thus, diabetic distress if left unaddressed often results in serious negative impact on patient's self-care and management of diabetes. **Conclusion:** Regular screenings for mental health conditions can be done for diabetic patients to understand the mind-body connection. It is of paramount importance for medical professionals to integrate mental health screening and mental health care into routine diabetes medical care which will be the need of the hour.

A Study to Predict Possibility of a Diabetic, Developing a Foot Ulcer and its Extension, by a Severity Score Index

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Introduction: Diabetes is a growing problem, with 537 million people living with diabetes worldwide and about 15% having a foot ulcer and 8% of those with ulcer foot undergoing amputation. **Objectives:** The aim of this study is to identify those diabetics that may develop a foot ulcer and those whose ulcer may worsen, by means of a predictive severity score. **Methods:** A cross-sectional study was carried out during June 2022 to July 2022 where 200 diabetic patients, among them 100 patients have foot ulcer and 100 without. Parameters, namely shape of foot, location of ulcer, posterior tibial artery pulsations, thickness of the sole of foot, were assessed. A new severity score was designed for these parameters. Each parameter was given scores from 1 to 3 based on their severity. Severity score indexing was done by adding all these individual scores. Statistical analysis was carried out using Microsoft Excel and SPSS version 21(trail version). Independent sample T test and ROC curves were applied. **Result:** Patients without foot ulcer has a mean score of 21.47 ± 3.6 . Patients with foot ulcer has a mean score value of 31.08 ± 5.11 . We recorded statistically significant higher score for the patients with foot ulcer. ROC analysis showed AUC of 0.94 (0.905-0.975), stating that Diabetic foot ulcer severity score can be used as screening tool. Among the patients with foot ulcer, 40 % amputations were recorded. **Conclusion:** The present study showed that Diabetic foot ulcer severity score index is a good predictor for people with diabetes who could develop foot ulcer. This simple severity scoring index can be applied to all the diabetic patients in any settings to predict and prevent limb loss.

A study on the association of Interleukin 1 B Gene- 511 C/T polymorphism with chronic kidney disease in Indian Patients with Type 2 Diabetes Mellitus.

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Introduction: Chronic kidney disease (CKD) is a progressive microvascular complication of type 2 diabetes mellitus (T2DM), which affects 30–40% of the patients, and is also the leading cause of end-stage renal disease in adults. Investigators across the world have extensively explored the relationship between cytokine gene polymorphisms and CKD, but the results remain inconclusive. This study proposed to investigate the relationship between interleukin 1 β gene (IL1- β) - 511 C/T polymorphism and CKD in a case control study. **Objective:** To investigate association of IL 1 β -511 C/T polymorphism in patients with T2DM and CKD when compared to patients with T2DM but without CKD. **Method:** The study enrolled 75 patients with T2DM with CKD and 75 patients with T2DM without CKD. DNA was isolated from blood samples and the IL1- β -511 polymorphism was determined by polymerase chain reaction restriction fragment length polymorphism (PCR-RFLP) using *AvaI* restriction endonuclease. The digested fragments were subsequently analyzed by agarose gel electrophoresis and genotypes were assigned to each participant based on the fragment size. Pearson's chi square (χ^2) test was used to calculate the genotype and allele frequencies. The association of the IL1- β -511 polymorphism with CKD was determined by calculating the odds ratio, confidence interval and p-value. A p value of <0.05 was considered to be statistically significant. **Result:** Analysis of genotype frequencies revealed a statistically significant higher frequency of the variant and heterozygous genotypes in the cases compared to control. **Conclusion:** To the best of our knowledge, this study is the first to evaluate the association of IL1 β 511 C/T polymorphism with CKD in T2DM in the Indian population where the variant T allele could represent a risk allele in patients with T2DM, increasing their susceptibility to progress to CKD.

Knowledge and Awareness Towards Tuberculosis Among the General Public in Vellore and Tiruvannamalai Districts: A Cross-sectional Study in A Tertiary Care Hospital.

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Introduction: India belongs to the list of high tuberculosis burden countries, although it is a treatable and preventable disease. Public awareness of tuberculosis plays a significant role in the prevention and control of this disease, especially for the exponentiating multi-drug resistant type. This study was aimed to evaluate the knowledge and awareness amongst the population seeking healthcare and thus, the results will help to build a better scientific foundation for tuberculosis awareness and also help public health practitioners to develop programs and strategies that will be more effective and helpful. **Objectives:** To assess the knowledge and awareness towards tuberculosis. To identify if there is understanding of the common symptoms associated with tuberculosis. **Methods:** This cross-sectional analytical study was conducted over a period of two months. 1003 participants were assessed using a semi-structured questionnaire, this included patients who visited the outpatient block of a tertiary care hospital. Then the statistical analysis was done. **Result:** The median (IQR) score for knowledge was found to be 38 (30-46). A dismal number of only 33.2% knew that tuberculosis affects the lungs. Only 33.2% knew the causative agent. Around 51.4% knew that it can be transmitted by cough. 70.15% knew that continuous coughing with expectoration as a symptom of tuberculosis. 57.7% were aware about the diagnostic test for tuberculosis. Only 28.2% knew about DOTS and only 38.7% knew the proper duration of treatment. Only 43.3% knew that the treatment is free of cost. 40.3% of the respondents considered the BCG vaccine as a preventive measure. The study found the chi square values to be 47.604 and 49.22 for the educational status and socioeconomic status respectively. The p value was also found to be <0.001 for the same. **Conclusion:** The median (IQR) score for knowledge suggests that it lies in the average range. Also, this study shows that there is a statistically strong association of knowledge scores and two demographic variables which are, educational status and socioeconomic status.

eNOS Gene Single Nucleotide polymorphism rs2070774[C>T] and the effect of its allelic variants on Pre-Eclampsia

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Introduction: Pre-eclampsia, a polygenic disease, affects 8-10% of Indian pregnancies. It is one of the highest causes of maternal Morbidity and mortality in India. The C786T promoter polymorphism of eNOS gene was studied for the first time in south Indian population, to be evaluated as a biomarker/ risk indicator for the development of Pre-Eclampsia, even prior to conception/ pregnancy; thereby helping the risk stratification of susceptible patients, early in the pregnancy.

Objectives: To estimate the prevalence & the effect of allelic variants of rs2070774 in study population. To determine the nature of association between the polymorphism and prognosis in patients with Pre-Eclampsia. **Methods:** Comparative cross sectional study with 50 cases and 50 age-matched, gestational age-matched apparently healthy pregnant women, DNA extracted from whole blood was quantified and subjected to ARMS PCR. Product was visualized under UV light after 2.5% Agarose Gel Electrophoresis, Serum Nitric Oxide, 24 hour Urine protein and Serum Calcium was also estimated. Analysed data was subjected to Chi-square and student t-test accordingly, p-value <0.05 considered statistically significant.

Results: Genotype distribution in Cases and controls were statistically significant, CC+CT genotypes showed 3.5 times higher risk of Pre-Eclampsia.(CI 1.529-8.012), Lower Nitric Oxide levels and lower serum Calcium levels present in cases compared to controls.(p<0.05). **Conclusion:** Presence of C Allele at rs2070774 leads to low serum nitric oxide levels and hence higher risk of Pre-Eclampsia. Most of the mutant (C) allele carriers also have low serum Calcium Levels, warranting supplementation therapy. Testing for this polymorphism will help in early identification even prior to conception, and patients testing positive for the mutant allele, can be started on prophylactic therapy to prevent the sequelae of complications.

Knowledge, attitude, and practices of 2nd year MBBS students regarding the use of face mask to limit the spread of the new coronavirus disease

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Introduction: The onset of the aggressive Coronavirus disease 19 (COVID-19) pandemic has necessitated masks for the health care community. For healthcare workers, proper knowledge, a good attitude and increased comfortability with masks are of great essence. Knowledge of proper use and handling of masks among health care workers and medical students is of utmost importance as they protect the wearer and those around from transmission of infection. **Objectives:** To assess the Knowledge, Attitude, and Practices of 2nd year MBBS Students Regarding the Use of Face Mask to Limit the Spread of the New COVID-19. **Methods:** After obtaining ethical approval from the Institutional Ethical Committee with an ethical approval no. of IEC/2020/2/42, a questionnaire with 14 questions was prepared to investigate the knowledge, attitude, practices, and problems faced by 2nd Year MBBS students with regards to wearing a face mask during the COVID-19 pandemic. The questionnaire was sent electronically, consent was obtained and the responses were analysed. **Results:** Assessment of knowledge revealed that 87.3% of participants knew the correct way of using a mask, 87.3% knew that there are three layers in it and 83.3% knew that the middle layer acts as the filter media barrier. Only 32.4% of participants knew that a surgical mask can be used for 8 hours and 92.2% incorrectly indicated cloth masks to be as effective in protection from COVID-19 as surgical masks are. About 97.1% of participants knew the purpose of metal strips and 93.1% knew the extent to which a surgical mask must cover. The attitude was excellent with 95.1% of participants believing that surgical masks can help, 90.2% saying they knew the steps of wearing a mask, and participants wearing masks at all times when conversing with patients and in public as well. Perturbingly, only 24.5% of participants faced no issues when wearing a mask. **Conclusion:** Overall, respondents displayed thorough knowledge and exuded a highly positive attitude but less than a fourth of respondents faced no issues while wearing a mask. Continued educational efforts and more research into mask comfort is the need of the hour.

Anatomical variation in the origin of Arteria Princeps Pollicis and Arteria Radialis Indicis– A Case Report

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Introduction: Arteria Princeps Pollicis and Arteria Radialis Indicis arise from the radial artery in the palm. Arteria Princeps Pollicis artery descends on the palmar aspect of the first metacarpal lateral to first palmar interosseous muscle and distally divides into two branches to supply adjacent sides of thumb. Arteria Radialis Indicis extends distally on the radial side of index finger. Numerous variations in the origin of these arteries have been reported in earlier literatures wherein they can arise directly from deep palmar arch or both, Arteria Radialis Indicis and Arteria Princeps Pollicis can have a common trunk, in accordance with Hollinshead. **Methods:** During routine dissection of palm for First year MBBS, We observed a variation in the origin of Arteria Radialis Indicis and Arteria Princeps Pollicis from Superficial Palmar Arch in a 60 year old male cadaver. **Result:** It was observed that the Superficial Palmar Arch received no contribution from the radial artery and was formed exclusively by ulnar artery. It terminated by giving rise to a common trunk of Arteria Princeps Pollicis and Arteria Radialis Indicis. This common trunk arose at the level of first lumbrical and travelled distally to divide into Arteria Radialis Indicis and Arteria Princeps Pollicis to supply radial side of index finger and adjacent sides of thumb respectively. The case is reported for its rarity. **Conclusion:** Knowledge regarding variations in origin of Arteria Princeps Pollicis and Arteria Radialis Indicis from superficial palmar arch is important as it could lead to potential hazard in case of traumatic injury to the ulnar artery due to the absence of collateral circulation. Arterial variation of hand plays a crucial role in successful management of surgeries of hand.

Levels of Stress, Anxiety & Sleep Quality among Medical Students due to COVID-19 & its effects on the Learning Behaviour

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Background: Student mental health in higher education has been an increasing concern. The COVID-19 pandemic is found to affect the mental health of the population. Especially, undergraduate medical students are especially prone to mental health disorders and hence could be more vulnerable to the impact of the pandemic. **Objective:** Our study aims to assess the effects of the COVID-19 pandemic on the mental health of medical students and also its impact on their Learning behaviour. **Methods:** We conducted an online interview survey with 250 medical students at Sri Ramachandra Medical College and Hospital, Chennai. The level of stress, anxiety and quality of sleep were assessed using Perceived Stress Scale (PSS), General Anxiety Disorder-7 Scale (GAD-7) and Pittsburgh Sleep Quality Index (PSQI) respectively. Later we compared their stress and anxiety level with their learning behaviour to assess their academic performance. **Results :** Out of 250 students, 140(56%) were Females and 110(44%) were Males. The overall prevalence of stress, anxiety and disturbed sleep were 40%(n=100), 79%(n=184) and 56 students (22%) respectively. The stress($p=0.025$) and anxiety level($p=0.048$) were increased among hostel students. Family history of covid infection is noted to increase the stress level ($p=0.021$) and reduce the sleep quality($p=0.006$). Students affected with covid earlier had increased incidence of anxiety disorder($p=0.001$). The level of stress is positively associated with anxiety($r=0.37$) and negatively associated with learning behaviour($r=-0.79$) among the students. Our study findings state that as the stress level and anxiety level increases it significantly affects the learning behaviour of the students. **Conclusion:** The findings from this study helped us to conclude that Covid-19 affects the mental health of the students which in turn made a greater impact on their learning behaviour also. Hence it is necessary to access the mental health of medical students and also recommendable to provide an alternate mental health service to prevent them from mental health disorders.

Attitude towards COVID 19 vaccines and vaccine hesitancy in urban and rural communities in Tamil Nadu, India – A community-based survey

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Introduction: Effective and safe COVID 19 vaccines have been approved for emergency use since the end of 2020 and countries are actively vaccinating their people. Nevertheless, hesitancy towards the vaccines exist globally. **Objectives:** We conducted this study to understand the attitudes towards COVID 19 vaccines and hesitancy to accept it among urban and rural communities in Tamil Nadu, India. **Methods:** We conducted a community based cross sectional study in urban and rural communities among 564 persons who had not been vaccinated yet, selected through multistage random sampling. The vaccine attitude scale (VAX) was used to measure attitudes towards the vaccines and their acceptance of the vaccine was captured by responses to a direct question. **Results:** More than 50% of the respondents had positive attitudes towards the COVID 19 vaccines. Based on their attitudes, they were segmented into four clusters, first with preference for natural immunity compared to vaccines and low concern regarding adverse effects. Second with high level of trust in vaccines and low mistrust. The third cluster members had high level of concern regarding the adverse effects and low levels of mistrust in vaccines and the fourth had high trust in vaccines and low preference for natural immunity. Older individuals with higher education and occupation were more likely to belong to cluster four with high trust in the vaccines. Younger individuals, women, rural residents, belonging to low-income labourer class were highly mistrusting of the vaccines. The prevalence of vaccine hesitancy was 40.7% (95% CI – 36.67 - 44.73%), while 19.5% (95% CI= 16.23 - 22.77%) of the respondents were vaccine deniers. While vaccine acceptance was greatest in cluster 1, it was least in cluster 3. **Conclusions:** Vaccine hesitancy was high in urban and rural Tamil Nadu. The population could be effectively segmented into groups based on their attitudes and this understanding can be used to develop targeted behaviour change communication campaigns.

Anatomical Variation of Sciatic nerve in gluteal region

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Introduction: Sciatic Nerve is the nerve of the posterior compartment of thigh formed in the pelvis from the ventral rami of the L4 -S3 spinal nerves. It leaves the pelvis via the greater sciatic foramen below piriformis and divides into Tibial Nerve and Common Peroneal Nerve at the level of the upper angle of the popliteal fossa. Higher division of the sciatic nerve is the most common variation where the TN and CPN may leave the pelvis through different routes. **Objective:** The purpose of this study is to identify the course and variations in branching pattern of the sciatic nerve which may lead to various clinical manifestations like sciatica. **Methods:** During routine dissection of 1st year MBBS students in the lower limb region in ESIC Medical College Chennai, we observed for any presence of variations in sciatic Nerve branching in gluteal region and whole of lower limb. The variations were photographed and documented accordingly. **Result:** We observed that the sural communicating nerve which is supposed to branch from Common Peroneal Nerve in the leg region had branched in the gluteal region along with the Tibial Nerve and Common Peroneal Nerve. **Conclusion:** Knowledge regarding the variations of sciatic nerve is of utmost important in doing surgical interventions in that particular region. Often this variation may be misinterpreted, leading to misplaced therapeutic injection in gluteal region which may cause sensory and motor loss to certain regions of lower limb.

Variation in lung fissures-a case study

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Introduction: Lungs are a pair of essential organs of respiration located in the thoracic cavity, which are situated on the either side of heart. They are divided into different lobes by the presence of fissures. Normally, right lung is divided into three lobes by horizontal and oblique fissures while left lung is divided into two lobes by horizontal fissure. Variations in the fissure are common. There may be absence of fissures, presence of extra fissures and complete or incomplete fissures. Normally lung fissures allow for greater distension of each lung. Knowledge of different fissures is essential to appreciate and locate the lobar anatomy and locating bronchopulmonary segments both anatomically and clinically. **Objectives:** To study the anatomical variations of fissures of lungs and their clinical applications. **Methods:** During routine dissection of 1 st year MBBS students in the thorax we observed for many variations in fissures and lobes of lung which were documented and photographed. **Result:** In 20 lungs studied (10 right and 10 left) in the present study, we observed the absence of horizontal fissure in 1 right lung, incomplete horizontal fissure in 1 right lung and incomplete oblique fissure in the 1 left lung, however no other variations were seen in other lungs. **Conclusion:** Knowledge regarding variation of fissures and lung lobes is important for interpretation of radiography, computed tomography scans and also to diagnose, plan and modify a surgical procedure in relation of lung segments.

PG ABSTRACTS

Healthcare seeking behaviour among diabetic patients in a tertiary care centre in Tamil Nadu, India

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Introduction: Health-seeking behaviour (HSB) is described as activities undertaken to maintain good health, prevent ill health, and deal with any departure from a good state of health. Diabetes has an estimated prevalence of 11.8% in India. Although there is a National Programme for Diabetes that provides free diagnostics, drugs, and health promotion through behaviour change with involvement of community, civil society, media, etc, patients still develop complications.

Objectives: The aim of the study is to assess participants' awareness of diabetic diet, foot care, regular eye check-up, and complications of diabetes, as well as adherence to a diabetic diet, physical exercises, drug therapy, and timely follow-ups.

Methods: A descriptive cross-sectional study was done among 157 Diabetic individuals who had at least three previous visits to the Non-Communicable Disease clinic. Seriously ill patients were excluded. Pretested semi-structured questionnaire was used. The data collected was documented in MS Excel and analysed using relevant statistical tests in EPI INFO v7.2.5. **Results:** Of the 157 participants, the mean age was 57.1 years and 48.7% had Diabetes for > 5 years. 85.9% of participants had low awareness of self-care and complications. 49.4% of the participants had lightheadedness as their initial reason that lead to the investigation of diabetes and 14.1% were diagnosed during regular check-ups. 39.1% of participants did regular physical exercises, and 32.7% followed the diabetic diet. 45.5% and 73.1% of the participants were overweight and had hypertension, respectively. 36.5% missed one or two doses of medication and 19.2% had changed medication dosage on their own. 78.9% made their preceding visits on the recommended dates. **Conclusion:** For majority of participants' adherence to drug therapy and timely follow-up is high. But the participants' had low awareness of self-care and complications, as well as low adherence to diet and exercise. This highlights the need to improve HSB.

Pediatric Burn Injuries – A Single-Institution Retrospective Epidemiological Review of Etiology and Outcomes

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Introduction: Burn injuries are considered an important preventable cause of injuries in children. Paediatric burn wounds are challenging conditions and can cause several complications entailing a complicated treatment and recovery process. This study investigated the causes and severity of paediatric burns. **Materials :** The institutional-based retrospective descriptive study design was conducted from January 2017 to December 2019. Data collections have been facilitated using a pre-designed checklist. **Results:** A total of 60 children were enrolled. The patient's mean age was 5.57 ± 3.9 years. Majority of the patients were male (36 [60%]) with a male-to-female ratio of 1.5:1. The majority of children (32 [53.3%]) presented with second-degree burns. Among the burn patients, 70% suffered from 10% to 20% of total body surface area burn. Most affected part of the body was upper extremity in 42 (70%) patients. Overall, 39 (65%) patients suffered from scalds. The mean hospitalization period was 14.4 ± 10 days. **Conclusions:** The majority of the burn injuries occurred at home with negligible pre-hospital interventions. Therefore, adequate health education should be delivered to the society regarding appropriate pre-hospital interventions and a safe home environment.

Soft Tissue Tumors - A Retrospective Study in A Tertiary Care Hospital

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Introduction: Most soft tissue tumors are benign in nature, a broad group of tumors which has diagnostic and therapeutic challenges. Categorization of these tumors on histopathological examination is essential. Radiological imaging, histopathology examination, and clinical findings are required to develop the management plan for the patient. **Objective:** To categorize the soft tissue tumors in patients diagnosed in ESIC Medical college and PGIMSR, KK Nagar, Chennai. **Methods:** Retrospective study, PERIOD: January to December 2021, TOTAL CASE: 106. Histopathological findings and Immunohistochemistry findings are put together for the diagnosis of the patient. Lipoma which is benign adipose tissue tumors were common in the population. Capillary hemangioma, schwannoma, fibrolipoma, neurofibroma, synovial sarcoma, and many other tumors were reported. Benign tumors were common and malignant tumors were challenging to diagnose. These soft tissue tumors were categorization benign, locally aggressive, uncategorized and malignant, which is essential for the therapeutic purpose of the patients. **Results:** All 106 soft tissue tumors were categorized, 94 cases were benign, 4 cases were locally aggressive, 3 cases were uncategorized, and 5 cases were malignant. **Conclusion:** Diagnosing the tumor and categorizing these tumors are important for the early management of the patient and has a major role in prognostic value. Of 106 cases, 94 cases were benign and lipoma was being commonest. Of 5 malignant tumors, monomorphic synovial sarcoma was the commonest in the patients.

The Neck unsheathed– A Rare case of Neurofibroma of Neck

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History: A 21 year old female presented with a history of a **swelling** in the right side of the **neck** for the past 2 years, which was insidious in onset, initially small in size and slowly progressed to the current size and associated with pain during movement of the right shoulder. No history of fever, weight loss, other swellings present in the neck. No history of contact with a known case of TB. **Examination:** General examination was normal. Local examination revealed a single hemispherical swelling of size 4x3 cm present in the right posterior triangle of the neck, skin over the swelling was normal, surface appeared smooth, borders were well defined. It was not warm or tender, firm, smooth surface, mobile. On contracting the sternocleidomastoid, it became less prominent, so the plane is deep to the sternocleidomastoid muscle. No other swelling was present in the neck. **Differential diagnosis :** Lymph node enlargement, Nerve sheath tumour **Investigatory findings:** The **MRI** was suggestive of a **nerve sheath tumour** between the scalenus anterior and medius. **FNAC** was reported as **benign spindle cell neoplasm**. Under general anaesthesia, **excision biopsy** of the swelling was done. Intra operatively the tumour was found to be between the scalenus anterior and medius and was excised in toto. Post operative period was uneventful. **Histopathology** was suggestive of a spindle cell neoplasm which was confirmed as **neurofibroma** using **immunohistochemistry** which was positive for **S100** and Epithelial Membrane Antigen (**EMA**). **Provisional diagnosis:** Neurofibromas are well differentiated nerve sheath tumours of benign origin but there is a 2-12% chance of conversion into a malignant form with a high recurrence rate. Tumours of neural origin arising from the neck are rare as they commonly occur in peripheral nerves. Most neurofibromas occur in association with a genetic disorder called neurofibromatosis, solitary occurrences are extremely infrequent. The clinical presentation is that of a slowly progressing painless neck mass. Risk factors have not been identified. Diagnosis is hindered by various differentials but can be clinched using MRI, histopathology, and immunohistochemistry. Treatment modality of choice is surgical resection. In our patient, accurate imaging and histopathological examination pointed to a neurofibroma in the neck. This is **an unusual location** of a neurofibroma as they are usually found in the peripheries. A high degree of clinical suspicion and proper imaging led to the best possible outcome.

A Rare case of Sclerosing Hemangioma of the skin

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History and Examination: A 23/F admitted in surgical ward with a swelling in the Right leg just below the knee for 6 months which showed rapid growth in last 2 months. On inspection a 4×3 cm swelling was observed on the anterolateral aspect of right leg, just 2 cm below the tibial tuberosity, which has well defined margins and smooth surface. On palpation the swelling was mobile and firm in consistency.

Radiological findings: MRI right leg showed T1 hypointense T2 heterointense lesion measuring 4×1.8cm involving the skin and subcutaneous plane anterolateral to the shin of right tibia without obvious muscle plane infiltration. No evidence of marrow signal intensity changes in tibia. After contrast, the lesion shows avid enhancement. **Provisional Diagnosis:** Soft tissue swelling – Spindle cell neoplasm.

Investigations: Tru-cut biopsy showed possibility of Benign spindle cell neoplasm.

Immunohistochemistry: SMA – negative, S100 – positive. The patient was taken for elective surgery under spinal anaesthesia. Wide local excision and primary wound cover with split skin graft was done. Postoperative period was uneventful. On postoperative histopathological examination it mainly consisted of **spindle shaped cells arranged in fascicles** interspersed with numerous **dilated thin-walled blood vessels** lined by flattened endothelium. Areas of fibrosis, hyalinization, focal collection of inflammatory cells are seen. Suggestive of Sclerosing Hemangioma.

Description of Diagnosis: Sclerosing Hemangioma now known as Benign Fibrous Histiocytoma is a pathogenetically diverse group of lesions. This term can be applied to the group of cutaneous lesions that are confined to the dermis and characterised by the proliferation of blood vessels and foamy histiocytes. The treatment of choice is wide local excision which has excellent prognosis and low recurrence. Here I have chosen this case because of its **rarity of occurrence in the skin**. Though there were only few studies reported a case of sclerosing hemangioma of lung and liver (Incidence 7%).

A case of Nonunion shaft of Femur Fracture

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History: Mr. X, 33 year old male, presented to our OPD with chief complaints of pain in left lower limb and difficulty in walking for the past 1 month, following a fall during an episode of seizure. The patient was apparently normal 5 years back when he suffered a road traffic accident due to which he sustained injuries to his left thigh and knee. He was diagnosed with closed segmental shaft of femur fracture and closed patella fracture of left side. The patient underwent closed reduction with intramedullary interlocking nailing for left femur and tension band wiring for left patella, after which he had no complaints for the next 5 years. The patient suffered an episode of seizure one month back. He sustained a fall after which he has had pain in the left hip and thigh, and faced difficulty in walking. The patient has since been on antiseizure medications. No known comorbidities. **Clinical Features:** Followings observations were made: Left Thigh: There are 3 surgical scars noted on lateral aspect of thigh – 10 cm proximal to greater trochanter, 5 cm distal to greater trochanter and over distal end of femur. There is a surgical scar over the midline of patella. There is full range of movements at the knee and hip joint with no abnormal mobility. There is obvious muscle wasting of left thigh and calf. There are no distal neurovascular deficits X-ray of the left thigh segment reveals non-union of middle third-distal third junction of shaft of femur, femur nail in-situ broken status; tips of distal screws broken; patella tension band wiring in-situ united states. **Provisional Diagnosis:** 5 years postoperative intramedullary interlocking femur nailing for segmental shaft of femur fracture left side with non-union and implant failure status, with postoperative modified tension band wiring for left patella united status **Management:** Femur nail implant exit, Revision femur nailing (one size larger), Bone grafting, Augmentation plating for additional stability.

Meckel's diverticulum presenting as acute intestinal obstruction in an adolescent

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History: A 14 year old male presented with complaints of severe colicky Abdominal pain which was of sudden onset, intermittent and not radiating for 1 day duration. H/o multiple episodes of non-projectile, bilious, non-bloodstained Vomiting that contained partially digested food for 1 day. H/o Obstipation present. **Clinical Features:** Patient was moderately built and nourished with stable vitals. Mild dehydration was present. Abdomen was mildly distended. Visible Intestinal Peristalsis was noted. Palpation elicited diffuse tenderness all over the abdomen. All quadrants were resonant on percussion and hyperactive bowel sounds were heard on auscultation. On investigation, the following were observed: USG- Abdomen showed dilated small bowel loops in the RIF, Hypogastrium and LIF. Fluid filled echogenic content and diffuse air shadows noted. CECT- Abdomen and Pelvis showed multiple air-fluid levels in dilated small bowel. Large bowel appeared collapsed. **Provisional Diagnosis:** Mechanical Small Bowel Obstruction possibly due to Midgut volvulus **Etiology and Pathogenesis:** Meckel's diverticulum – true congenital GI diverticulum arising from incomplete obliteration of the proximal part of Vitellointestinal duct (7th week IUL). Follows Rule of 2- 2% incidence, 2 feet from ileocaecal valve, 2 inch in length, 50% symptomatic below 2 years of age. Commonly presents as hemorrhage, obstruction, intussusception, diverticulitis and perforation in <5 y/o children. This is a case of Acute Intestinal obstruction due to Volvulus of small bowel around a Mesodiverticular band arising from Meckel's diverticulum. The older age (14years) and the existence of the Mesodiverticular band, a rare embryonic arterial remnant connecting the diverticulum to the posterior part of the umbilicus, make this presentation unique. **Management:** Emergency Exploratory Laparotomy was done. Intraoperatively, Meckel's diverticulum with a Mesodiverticular band was found 60 cm away from the ileocecal junction. Volvulus of small bowel loops was noted around the band. Diverticulectomy with Band release was done. Due to timely intervention, bowel was viable. In addition, multiple enlarged Mesenteric lymph nodes and a Mesenteric Cyst of size 5 x 4 cm were excised and sent for HPE (findings-unremarkable) Post-operative period uneventful and patient was discharged on 11th POD.

Pleomorphic adenoma in Nasal Cavity

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History: A 65 year old female with a h/o recurrent bleeding from left nasal cavity, since 3 weeks. **Clinical Features:** A polypoidal pink mass in the left nasal cavity attached to the inferior nasal cavity attached to the inferior turbinate that bleeds on touch. CT showed moderately enhancing soft tissue. Nasal septum is mildly deviated towards right side with septal spur. Histopathology examination showed tissue lined by pseudostratified ciliated columnar epithelial cells with well delineated neoplasm having cells arranged as vague tubules, nests and focal papillary pattern. Stroma has mixed epithelial and myxoid appearance, suggestive of Pleomorphic adenoma. **Provisional Diagnosis:** Pleomorphic Adenoma in Left Nasal Cavity. **Etiology and Pathogenesis:** Pleomorphic adenoma is a benign tumor commonly affecting salivary glands especially parotid gland. Pleomorphic adenoma of nasal cavity is rare. There are no known etiology. The most common presenting symptom is Unilateral nasal obstruction with epistaxis. **Management:** This patient underwent excision of the Left Nasal Mass done under GA. Further patient was treated with antibiotics, analgesics and other supportive measures. When symptomatically better and hemodynamically stable, patient was discharged.

A Case of Benign lymphoepithelial lesion of the Sublingual gland

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History: A 15 year old female presented with a history of swelling in the right neck under the chin for the past 6 months. It was insidious in onset, was initially small in size and gradually progressed over the past 4 months to attain the present size. It was not associated with pain. No history of dysphagia, fever, cough with expectoration, loss of weight and appetite, dry eyes or dry mouth. **Clinical Features:** General examination was normal. On Local examination there was a right sided submandibular swelling measuring 4*3cm. Skin over the swelling was normal, surface was smooth, firm in consistency, borders were ill defined, positive for fluctuation and was not bimanually palpable. On Investigation, following findings were observed: USG - Cystic lesion of 4*2 cm with echogenic contents. CT - Peripherally enhancing hypodense lesion of 3.7*2.7 cm in the right sublingual space, splitting the right mylohyoid and genioglossus muscles. FNAC - Lymphocytic and histiocytic infiltrates in the background of scattered squamous and eosinophilic necrotic material, suggestive of Benign lymphoepithelial tumor (BLEL). Excision biopsy under GA was performed. HPE - Postoperative HPE showed salivary gland tissue with acinar destruction and replacement with dense lymphocytic infiltration confirming the presence of a BLEL. Serological work-ups for associated autoimmune diseases and ELISA for HIV were negative. **Provisional diagnosis:** Enlarged neck node. **Etiology and Pathogenesis:** BLEL constitutes 5% of all benign salivary gland tumors. It is of unknown etiology, more common in females, may be unilateral or bilateral. Salivary parenchyma is replaced with Lymphoid tissues. It is thought to arise from dilatation of intraglandular ducts from obstruction due to lymphoid hypertrophy. Can be diffuse or focal, encapsulated or unencapsulated, associated with Mikulicz's or Sjögren's disease or HIV. It is a rare tumor, mostly involving the Parotid or Submandibular gland. In this case, however, BLEL was found in the Sublingual gland. **Management:** Surgical Excision Biopsy.

Proptosis: A Rare Case of Isolated Unilateral Orbital Myeloid Sarcoma

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Etiology and Pathogenesis: Orbital myeloid sarcoma (chloroma) as a first manifestation of acute myeloid leukemia (AML), is rare. Here with we report a child presenting with progressive proptosis found to have isolated myeloid sarcoma.

History: A 5-year-old boy presented with progressively increasing proptosis of left eye with chemosis of 9 months duration. **Clinical Findings:** At physical examination eyelid edema, conjunctive hyperemia and inferior displacement of the left eye were detected. MRI brain with orbit showed extraconal lesion in the upper inner quadrant of left orbit suggesting myeloid sarcoma. Incision biopsy showed small round blue cell tumor with myeloid markers (CD45, CD34, CD117 and MPO) positive on immunohistochemistry, confirming the diagnosis as myeloid sarcoma.

Provisional Diagnosis: Isolated Unilateral Orbital Myeloid Sarcoma. **Etiology and Pathogenesis:** Orbital myeloid sarcoma (chloroma) as a first manifestation of acute myeloid leukemia (AML), is rare. Here with we report a child presenting with progressive proptosis found to have isolated myeloid sarcoma. **Management:** He was treated with chemotherapy (induction with cytarabine and daunorubicin) and consolidation therapy (high dose cytarabine) and followed by radiation. He is well now and under follow up.

A Case of Glanzmann Thrombasthenia

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Background: GT is an autosomal recessive disorder of platelet aggregation caused by quantitative or qualitative defects in integrins α IIb and β 3. GPIIb/IIIa is a heterodimeric receptor present in large quantities in the plasma membrane of platelets and is the principle receptor for fibrinogen. Main 2 groups: type I with absent IIb/IIIa expression, type II with reduced expression and type III has normal levels of integrin but the protein is nonfunctional. **Identification of HLA or GPIIb/IIIa antibodies during pregnancy** is essential for planning delivery. **Primary postpartum hemorrhage** is common, hence red cell transfusion and monitoring is mandatory. **HISTORY:** Mrs. JJ, 39 years, booked, elderly primigravida at 36 weeks + 6 days gestational age, DCDA twin gestation via IVF conception. EDD- 19.7.2022. Known case of Glanzmann Thrombasthenia type 2 since 4 years of age and Hypothyroid, came with complaints of leaking P/V for 1 day, bleeding gums and itching throughout body for 3 weeks. She was admitted for safe confinement. **EXAMINATION:** On General examination, Bleeding from gums, Pedal edema and Multiple excoriations in abdomen and lower limbs were noted. Baseline investigations showed blood group AB+, HB- 11.2g/dl, TC- 10840 cells/cumm, platelets- 1.58 lakhs/cumm, PT/PTT/INR- 10.8/22.6/0.88, FT4/TSH- 1.12/6.64 and S.bile acid- 4.8. **MANAGEMENT:** Patient underwent emergency lower segment C-section in view of DCDA twin gestation with PPRM and 1st twin in non-cephalic presentation. 1 unit PRBC transfusion was done on POD1. After prescribing systemic anti-histamines and moisturizer for local application for itching, on POD7, she was discharged with Repeat Platelets-2.89 lakhs/cumm. Patient was again admitted after 3 weeks due to bleeding per vaginum for 3 hours (secondary postpartum hemorrhage), during which she was found to be RT PCR POSITIVE for SAR COV-2. Later, Patient was discharged with conservative management and transfusion of 1 unit packed cell on POD4 with rules of home quarantine for 1 week.

An interesting case of abdominal pain

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History: A 58 year old female was admitted with chief complaints of abdominal pain and black stools for the past 3 days. She had a history of hypothyroidism and lower back pain, which relieved on taking NSAIDs. **Clinical Features:** On examination, she was dehydrated, pale and tired looking. Epigastric and spinal tenderness (T10, L4, L5) were present and straight leg raising test was positive bilaterally. CBC mainly revealed anemia. Hence, she was managed as a case of NSAID related erosive gastritis initially. On 3rd day of admission, patient became a little drowsy, irritable and was in a state of altered sensorium. The attenders gave a similar history that occurred few days back. Despite iv fluids, patient was dehydrated with polyuria and constipation which were suggestive of hypercalcemia. Lab investigations revealed elevated serum calcium levels and acute kidney injury. Patient was aggressively treated with iv fluids which improved the sensorium and calcium levels. In view of elderly lady with lower back pain and hypercalcemia, patient was evaluated for lytic bone diseases. Serum protein electrophoresis then revealed M band, suggestive of Multiple Myeloma(MM). **Provisional Diagnosis:** Diagnosis of symptomatic MM was made which was confirmed by bone marrow studies. Meanwhile, repeat bone imaging showed lytic lesions in the skull. After management, the patient was referred to the oncologists for further treatment. **Etiology:** MM is a malignant proliferation of plasma cells causing monoclonal hypergammaglobulinemia. Exact cause is unknown but is associated with genetic rearrangements and proto-oncogenes such as MYC, KRAS, BRAF. **Pathogenesis:** Chemokines from neoplastic cells activate osteoclasts, causing lytic lesions, pathological fractures and hypercalcemia, generating neurological manifestations. Paraproteinemia causes hyperviscosity, platelet dysfunction, and “myeloma kidney”. Low normal Ig increases infection susceptibility. **Management:** Systemic therapy: marrow transplant and drug regimens such as lenalidomide, bortezomib and dexamethasone, used in transplant eligible and ineligible patients. Supportive care: iv fluids for hypercalcemia, plasmapheresis for kidney failure, prophylactic IVIG, radiation for bone lesions, vertebroplasty, etc.

Chronic volvulus - a challenging diagnosis

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Background: Chronic midgut volvulus is a rare condition and the diagnosis can pose a serious challenge. Malrotation with midgut volvulus classically presents acutely in infancy, with a clinical picture of bilious vomiting. Presentation and diagnosis of chronic volvulus beyond infancy, may not be straightforward and failure to consider can have significant consequences on patient quality of life. We present an unusual case of malrotation, a 4 year old girl, with a long-standing history of atypical gastrointestinal symptoms with on and off vomiting for past 1 year with significant weight loss and reduced urine output for a day. In ER child presented with severe dehydration with AKI. Child was managed with dehydration correction and peritoneal dialysis for AKI and thus managed symptomatically. As child had cyclical vomiting history and her clinical examination showed distended abdomen and the diagnosis of cyclical vomiting syndrome was considered initially. As child continued to have persistent bilious vomiting with nonspecific abdominal Xray findings and normal ultrasound abdomen, fluoroscopy was done which showed focal circumferential constriction in duodenum. A diagnosis of small bowel obstruction was made and the patient was taken for laparotomy. The intraoperative findings were consistent with chronic volvulus around the mesentery with malrotation of the bowel. Resection and anastomosis of bowel was done and child was gradually started on feeds after 14 days of NPO. Chronic volvulus is caused due twisting of the congenitally malrotated bowel around the ligament of Ladd which results in intestinal obstruction and gangrene of the bowel. Although extensive evaluation was performed, the diagnosis of chronic volvulus was only established after a year.

A case of Biphenotypic sinonasal sarcoma mimicking glomangiopericytoma

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History: A 72 year old male presented to the ENT OPD with chief complaints of right sided nasal block with episodes of epistaxis and nasal discharge for a duration of 3 months. No associated comorbidities and no significant family or allergic history. The patient was previously admitted in 2019 for similar episodes and underwent excision biopsy of right sided nasal mass and HPE revealed collagenous fibroma.

Examination Findings: **Nose:** External contour, vestibule and columella was normal. **Anterior rhinoscopy:** **Right nasal cavity:** Pinkish mass visualised involving right nasal cavity extending anteriorly upto the anterior end of the inferior turbinate, firm in consistency, unable to probe all around bleeds on touch; floor, middle and inferior turbinate not visualised **Left nasal cavity :** DNS with spur in the left + synechiae between the septum and inferior turbinate. **CT Paranasal air sinuses:** Bilateral osteomeatal units are widened and blocked, Bilateral fronto ethmoidal and sphenoethmoidal recess appears blocked, Polypoidal mucosal thickening noted in the right maxillary, ethmoid and frontal sinus. **Histopathology Findings:** Right nasal mass was sent for Evaluation. Histopathology report revealed irregular acanthotic spongiotic stratified squamous epithelium overlying oedematous fibrocartilagenous stroma. Tumour cells ovoid to spindle shaped with moderate eosinophilic cytoplasm and perivascular hyalinisation seen. Histopathology reports revealed it as a glomangiopericytoma and then immunohistochemistry was done. IHC revealed high positive **PAX 3 and SOX 10** suggestive of a low grade biphenotypicsinonasalsarcoma. **Provisional diagnosis:** Biphenotypicsinonasal sarcoma mimicking glomangiopericytoma **Differential diagnosis:** Inverted sinonasalsarcoma, Squamous cell carcinoma, Sinonasalglomangiopericytoma.

Description of The Diagnosis: Biphenotypicsinonasal sarcoma (BSNS) is a rare, spindled cell malignant neoplasm of the sinonasal tract. Arises from - superior nasal cavity and ethmoid sinus **Pathogenesis:** Chromosomal translocation t(2;4) (q35;q31.1) which causes PAX3 and MAML3 fusion protein (novel transactivator of PAX3 response elements). **Management:** Biphenotypicsinonasal sarcomas are primarily treated with surgical resection. Primary radiation therapy combined with chemotherapy is the palliative treatment.

Hyphema leading to underlying Hemophilia in a young boy

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History: J, 3.5year old boy presented with alleged history of trivial blunt trauma to right eye suffered 5 months ago while playing, following which he developed swelling of right eye the next day. He was treated elsewhere with drainage of traumatic hyphema with secondary glaucoma, further as traumatic endophthalmitis and referred to an apex ophthalmology institute with worsening vision. **Clinical features:** On examination, corneal opacification and hyphema were noted. There was no history of prolonged bleed from umbilical stump, swelling at vaccination sites or excessive bleeding following trauma. There was no significant bleeding history in family members and no parental consanguinity. In view of hyphema in a male child without significant trauma, bleeding disorder was suspected and evaluation revealed normal platelet count, prothrombin time (PT) and INR; activated partial thromboplastin time (APTT) was prolonged and corrected on mixing with normal plasma (49.7s(control-28.4), mixing study – 25.4s). Further analysis revealed 19% of Factor-VIII level, suggestive of Mild hemophilia-A. Von Willebrand factor assay was normal. Pros and cons of hyphema drainage with intraocular surgery with Factor-VIII concentrates in the background of mild hemophilia-A were discussed with primary ophthalmologist, pediatric hemato-oncologist, pediatricians, anesthetist and patient's attendants. **Provisional Diagnosis:** Hyphema in Hemophilia. **Etiology and Pathogenesis:** Mild Hemophilia-A is an X-linked recessive disorder of coagulation factor-VIII (F-VIII) levels ranging between (5–40 %). Traumatic hyphema is a rare complication of Hemophilia-A making it a diagnostic challenge. Spontaneous, delayed and deep bleeding is characteristic of severe Hemophilia-A, whereas in mild phenotype, bleeding happens with trivial trauma. Management includes supportive measures like local pressure, ice compressions, oral antifibrinolytics and Factor-VIII concentrates. High index of suspicion is required to diagnose mild variant and any significant deep bleed with trivial trauma warrants a detailed evaluation. **Management:** Considering the risks vs benefits of surgery and guarded visual prognosis in right eye due to chronic hematoma, patient was managed conservatively

Paroxysmal Nocturnal Hemoglobinuria- a lurking destroyer

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History: A 50 year old male alcoholic patient presented with chief complaints of easy fatiguability, bilateral swelling of legs and exertional dyspnea for 1 week.

Clinical Features: On examination, Patient had pallor, icterus and bilateral pitting pedal edema. Initial blood investigation demonstrated pancytopenia, and raised bilirubin with normal enzymes. Peripheral smear done was suggestive of pancytopenia and macrocytic anemia with retic count of 0.4% with reduced Serum Vit.B12 and Folic acid levels.

Provisional diagnosis: hypo-proliferative macrocytic anemia and pancytopenia due to Vit.B12 and folic acid deficiency secondary to alcoholism was made. **Etiology and Pathogenesis:** PNH- AA syndrome presents with symptoms of venous thromboembolism, immune mediated destruction of HSCs resulting in bone marrow failure and varying degree of hemolysis. PNH is a clonal non-malignant hematological disease characterised by expansion of Hematopoietic stem cells whose surface lacks all proteins linked through glycosylphosphatidylinositol anchor, a defect that arises from a somatic mutation in the PIG-A gene. This patient was treated with blood ransfusion, Tablet Danazol and was primed for bone marrow transplantation. **Management:** Patient was treated with therapeutic doses of vitamin B12 & folic acid, blood transfusion and supportive measures. Serial follow up with CBC and LFT after treatment was unprogressive and patient had no improvement. On further evaluation, patient had raised LDH, bone marrow biopsy showed hypocellular marrow and Grade 1 marrow fibrosis, bilateral lower limb AV doppler showed chronic thrombus in right femoral and popliteal vein which led to a suspicion of Paroxysmal nocturnal Hemoglobinuria. PNH flow cytometry demonstrated decreased expression/absence of CD157 and FLAER on 32.53% of gated neutrophils and on 28.75% of gated monocytes which confirmed the diagnosis of PNH. Patient was diagnosed to have PNH with Aplastic anemia syndrome.

Dancing eyes dancing feet - a rare case of opsoclonus myoclonus syndrome

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History: A 24 year old male, a known alcoholic with no significant past medical history was admitted with chief complaints of fever for 1 week followed by severe headache, altered sensorium with irrelevant talks, & involuntary movements in upper and lower limbs for 1 day. **Examination findings along with laboratory and radiological findings:** Patient was lethargic, irritable and had dysarthria. Tremulous movements of upper and lower limbs, cerebellar ataxia, opsoclonus, myoclonus were noted. **Lab investigations:** CBC showed leucopenia, thrombocytopenia. Renal parameters and bilirubin levels were elevated. Fever profile was done and was negative for typhoid, malaria, dengue. **Serology for Leptospirosis was found to be positive.** MRI Brain with MRV/MRA was normal. EEG showed diffuse cortical activity. CSF analysis was normal. A diagnosis of Opsoclonus Myoclonus syndrome, an extremely rare neurological disorder which involves the cerebellum was made. **Pathophysiology:** Autoimmune dysfunction due to varied aetiology. This maybe cancer-related, idiopathic or post-infective. Symptoms improve with treatment of the underlying disease and glucocorticoids, plasma exchange, IV Ig. Apart from routine investigations, the patient was also screened for occult malignancies and the results showed no evidence for the same. **Provisional Diagnosis:** Since the patient had opsoclonus, myoclonus, involuntary movements, ataxia and altered sensorium following a febrile period, a diagnosis of **Kinsbourne encephalitis** was made. He was treated with methylprednisolone followed by oral prednisolone along with Crystalline penicillin (for leptospirosis) and other supportive measures. He responded well and was ambulant within a period of 1 month with symptoms reducing except for minimal ataxia. **Brief description of diagnosis-**1) **Aetiology:** Kinsbourne encephalitis is an extremely rare neurological disorder with an incidence of 1 in 10,000,000 population. This maybe cancer-related, idiopathic or post-infective.2) **Pathogenesis:** Autoimmune dysfunction; Disinhibition of the fastigial nucleus of cerebellum3) **Management:** Symptoms improve with treatment of the underlying disease and glucocorticoids, Adrenocorticotrophic hormone (AcTH), plasma exchange, IV Ig.

A case of Neurological Adverse reaction of Isoniazid

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History: 61 years old female with significant past history of type 2 diabetes mellitus, systemic hypertension and chronic kidney disease presented with complaints of breathlessness on exertion, loss of weight, night sweats and easy fatigability for 1 month. **Examination findings along with laboratory and radiological findings:** On examination, patient was noted to have reduced vocal fremitus, vocal resonance and stony dullness on right side suggestive of pleural effusion which was confirmed with X ray. Pleural fluid analysis done revealed exudative effusion with raised ADA levels suggestive of tuberculous aetiology. Patient was started on modified anti tuberculous regimen in view of chronic kidney diseases with isoniazid, rifampicin, ofloxacin and pyrazinamide. On 4TH day after starting ATT, patient suddenly became restless, irritable & agitated with aimless incongruous act & irrelevant talking. A diagnosis of altered sensorium was made.

Differential diagnosis: Hyponatremia due to SIADH, CNS Tuberculosis and drug induced psychosis was considered in this patient. On further evaluation, serum sodium and MRI brain was found to be normal. **Provisional diagnosis:** Provisional diagnosis of Isoniazid induced psychosis was made and isoniazid was discontinued. **Brief description of diagnosis-1) Aetiology:** Isoniazid induced Psychosis is a diagnosis of exclusion- timely discontinuation of the drug can help early resolution to psychiatric symptomatology. Since the patient has comorbid condition renal failure, INH adverse reaction manifested as neurological complications. **2) Pathogenesis:** i) Destruction of B complex- INH inhibits the conversion of Pyridoxal to pyridoxal-5-phosphate which is a cofactor for glutamic acid decarboxylase (GAD). GAD catalyses the conversion of glutamic acid to GABA. ii) Inhibits Monoamine Oxidase. iii) Reduces NMDA receptors. **3) Management** i) Discontinuation of Isoniazid ii) Benzodiazepines- Diazepam/Lorazepam iii) Antipsychotics – Haloperidol/Atypical antipsychotics iv) Pyridoxine should be added to ATT regimen to prevent neurological complications. Adverse reactions following ATT are very common and physicians must be aware of the possible side effects.

A Case of Tuberous Sclerosis

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History: 13 year old girl was brought to casualty with H/O convulsion involving both upper and lower limbs and fever for 1 day. The episode lasted for about 2 minutes with LOC for an hour. H/O urinary incontinence. She had history of infantile spasm with seizure upto 3 years of age and was on Vigabatrin. She didn't have episodes of seizure since then and wasn't under medication. Her lack of relevance and connectivity in her talking indicated her to have an intellectual disability. She has family history of her father and grandmother suffering from neurological and dermatological problems and her brother having dermatological problems. Her father had Shagreen patch and skin nodules over face and neck and Giant cell astrocytoma on MRI. Her brother had Adenoma sebaceum on face and Shagreen patch on trunk. **Examination findings along with relevant laboratory and radiological findings:** On examination, she was confused, responding to oral commands and afebrile. She was pale. She had multiple facial angiofibromas appearing as well defined hyperpigmented papules over malar area, Shagreen patch over hip region and hypomelanotic macules (Ash leaf spots). Teeth had multiple dental pits. Detailed CNS examination revealed increased tone of both upper and lower limbs with brisk deep tendon reflexes, absent superficial reflexes and Bilateral positive Babinski's sign. CVS examination revealed systolic murmur in Tricuspid area. Investigations showed 10x8mm size Hypodense lesion with peripheral incomplete calcification noted in Foramen of Munro, Multiple sub-centrimetric calcification noted in Bilateral cerebral hemisphere, Ethmoidal and Maxillary Sinusitis with no Granulomatous disorder in CT Brain; Cortical tubers and subependymal giant cell astrocytoma. **Differential Diagnosis:** Tuberous sclerosis, Infections, Demyelinating lesions, Sarcoidosis, Radiation necrosis in a previously treated patient. **Provisional Diagnosis:** Tuberous Sclerosis. **Etiology:** Autosomal dominant in TSC1 or TSC2 gene **Management:** Radiation Therapy, Surgery, Chemotherapy.

Acute retropharyngeal abscess of tuberculous etiology

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History: 36-years –old male, Mr.V, a factory worker by occupation from Urapakkam, came to the Orthopaedic OPD with complaints of neck pain for 1 month. Patient was diagnosed as a case of cervical spondilitis and conservatively treated for it. As there was no improvement and patient developed Trismus following which he was referred for ENT opinion. On further history taking in ENT OPD, patient was found to have complaints of throat pain, difficulty in phonation, and difficulty in swallowing for 20 days, difficulty in breathing for 1 week and fever for 2 days which was intermittent and of low grade. **Clinical Features:** On Examination, Oral cavity: Trismus + (2 finger breadth) Oropharynx: Bulge seen over right side of posterior pharyngeal wall Ear, Nose and Paranasal sinuses: Normal. On investigations in view of Retropharyngeal Abscess, the following observations were made-Video Laryngoscopy: Bulge noted in the posterior pharyngeal wall. X-Ray Soft tissue neck lateral view: A soft tissue shadow seen in retropharyngeal region with indentation of the hypopharyngeal posterior wall. CT-Neck (Plain): Peripherally enhancing retropharyngeal collection extending from nasopharynx upto C4-C5 disc level. The lesion compresses the oropharyngeal airway leading to lumen narrowing. Focal bony erosion of posterior odontoid noted. MRI: Peripherally enhancing retropharyngeal collection with secondary osteomyelitis and epidural involvement. **Probable Diagnosis:** Acute Retropharyngeal Abscess. **Etiology:** Secondary to spread of infection from deep cervical lymph nodes, Trauma to posterior pharyngeal wall, Tuberculosis of cervical spine. **Pathogenesis:** Infection by causative organism ->Reactive lymphadenopathy ->Suppurative lymph adenitis ->Retropharyngeal cellulitis ->Retropharyngeal abscess ->Through hematogenous route the infection affects the vertebrae. Acute retropharyngeal abscess is more common in children and the etiology in adults is foreign body impaction. In this case it is of tuberculous etiology presenting as acute retropharyngeal abscess which is usually the etiology of chronic cases. **Management:** Under monitored anaesthetic care, tongue was depressed using a tongue depressor and, incision and drainage was done with

70degree endoscopic guidance. About 15-20mL was drained on 8/6/22 and sent microbiological examination. The pus was drained again on 9/6,11/6 and 21/6 following which the patient improved. On Microbiological examination: No growth of acid fast bacilli. Culture and sensitivity: MRSA. Sensitive to CLINDAMYCIN and COTRIMOXAZOLE (treated with these antibiotics).Patient improved symptomatically with IV antibiotics. After 5 days patient again developed intermittent fever and neck pain. In view of persistent neck pain, pulmonologist opinion was sought regarding start of Anti-Tuberculosis treatment. Patient was asymptomatic after ATT.

A Case of Goblet cell carcinoid

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History: A 18 year old female was admitted with the chief complaints of pain right lower abdomen, fever, intermittent hematuria, loss of weight, loss of appetite. She had a past history of recurrent hematuria for the past for 8 years, recurrent urinary tract infections in the past. She had a history of reduced food intake and irregular menstrual cycles. **Examination findings:** The general examination showed a thinly built female, poorly nourished with a weight of 35 Kgs. She was pale, with no icterus / cyanosis / clubbing / cervical lymphadenopathy. The vitals were within normal limits. The systemic examination showed a soft abdomen and no organomegaly. There was localised tenderness in the right iliac fossa. The other systems were normal. The clinical diagnosis was acute appendicitis. The investigations revealed CBC : Hb – 9.8% / TC - 10,700 / MCV – 71 / MCH – 23. The random blood sugar was 73 mg/dl. The renal function tests were within normal limits. The chest X ray PA view was normal. The serology were non-reactive. The CT-Abdomen was normal. The MRI-Abdomen showed a 1cm Urachal Cyst. **Provisional Diagnosis:** The final pre-op diagnosis was: Remnant Urachal Cyst and Acute Appendicitis. **Brief Description of Diagnosis:** Histopathology Study showed: Urachal cyst excised specimen showed a cyst lined by transitional epithelium. Appendicectomy specimen showed a Goblet Cell Carcinoid. Grossly, the appendix appeared shrivelled up with a yellowish tip measuring 1X1cm. Tumour was seen at the tip with circumferential involvement. The tumour was composed of nests, trabaculae and cords of atypical cells separated by extra-cellular pools of mucin. The atypical cells showed mild atypia, a vesicular nucleus and “salt and pepper” chromatin and eosinophilic vacuolar cytoplasm. The tumour showed both intra and extra cellular pools of mucin. Follow up done at 3,6 and 12 months after surgery was uneventful and patient gained weight.

Phaeohyphomycosis

Thamizhazhagan.G

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History : A 54 years female ,farmer by occupation presented with swelling over dorsum of right distal part of index finger. Duration of swelling, whether progressive or not : not known. History of minor trauma to the finger: present. History of diabetes : present (on medication). No h/o rheumatoid arthritis. **Clinical Features:** H & E stained sections showed granulomatous reaction and cystic areas with necroinflammatory reaction along with palisaded histiocytes. Few brown coloured septate narrow based hyphae with beaded appearance were seen which was confirmed on PAS stain. Few yeast forms and pseudohyphae were also seen on PAS stain. Characteristic morphology of phaeohyphomycosis fungi - Short hyphal forms (2-6 micrometre), septate, sometimes branched with band of constriction at the site of septations (beaded appearance). Pseudohyphae and yeast forms can also be seen. **Provisional Diagnosis:** Implantation dermoid and Rheumatoid nodule were excluded by HPE, characteristic pigmented beaded fungal hyphae were seen. So it's phaeohyphomycosis. **Etiology:** Most common route of infection is by inhalation or minor penetrating injury. **Pathogenesis:** Melanin in the cell wall is the main virulence factor and imparts brown colour to fungus. It confers protective advantage by scavenging free radicals produced by phagocytic cells & binds to hydrolytic enzymes preventing their action on fungal plasma membrane. **Management:** Local infection may be cured with excision alone while systemic disease is often refractory to therapy. Flucystosine, itraconazole and voriconazole have most consistent in vitro activity.

A fascinating case journey – JE

Vaishnavi D, Dr Prathish Kumar

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History: 66year female, known Diabetic, Hypertensive and CKD was admitted in ICU for decreased responsiveness since morning and history of fever for 1day. No history of headache or vomiting. Had pyuria on catheterization in ICU. **Clinical Features:** On Examination, there was no pallor/icterus/cyanosis/clubbing/pedal edema. Temperature: 98.4F, Pulse: 92bpm, BP:170/100mmHg, RR:20/min, CBG:75mg/dl, SpO2:94%. No eschar. Cardiovascular, respiratory and abdomen examinations were normal, on CNS examination: GCS-7/15 (E2V2M3). Bilateral plantar – Extensor. Bilateral pupils – Equally reacting to light. Reduced movements in right upper and lower limb. Mild neck stiffness present. Investigations were done and the following observations were made-Leukocytosis, elevated RFT, 20-25 pus cells in urine routine. MRI-Brain was normal and renal parameters improved. Tropical fever investigations and urine culture were negative. CSF analysis– ADA and sugar normal, elevated protein and lymphocytosis. CSF negative for HSV. Thyroid profile sent in suspicion of Hashimoto's encephalopathy was normal. Repeat CSF analysis for Japanese Encephalitis was found to be positive. Patient was treated conservatively. **Provisional Diagnosis:** Japanese Encephalitis. **Etiology and pathogenesis:** Japanese encephalitis virus(JEV) belonging to Flaviviridae family, is a leading cause of viral encephalitis in rural Asian children. It has an enzootic cycle involving mosquitoes and vertebrates amplifying hosts, primarily pigs transmitted by culex mosquitoes with humans as incidental and dead end hosts. Incubation period: 5-15 days. Patient presents initially with no symptoms or non-specific symptoms like fever, headache, vomiting; over next few days, progresses to develop mental status changes like agitation, delirium, focal neurological deficits, movement disorders like neck stiffness, paralysis, seizures and coma, even death. **Management:** Conservative treatment with maintenance of cerebral perfusion pressure and prevention of secondary complications. No specific antiviral drugs are available.

Congenital adrenal hyperplasia

Vikram VC, Dr Nithya S, Dr Abinaya

Department of Paediatrics, Govt Chengalpattu Medical College, Chengalpattu

History: A 45 days old Ambiguous genitalia infant (term) with birth weight of 2.9 kgs (current weight-2.52kgs) born out of third degree consanguineous marriage, brought to the emergency department with complaints of vomiting, refusal to feed and incessant cry for past 1 day. The baby was diagnosed congenital adrenal hyperplasia & having mild hypertension. **Clinical Features:** On head to toe examination, Baby had hyperpigmentation all over the body; whitish patch over the buccal mucosa (both sides). Genitalia, on examination shows bilateral cryptorchidism, micropenis, penile hypospadias and hooded skin. Systemic Examinations like CVS, RS, GIT, CNS all are normal. Laboratory diagnosis and Radiological findings showed that CBC, RFT, Serum electrolytes are normal. LFT shows elevated alkaline phosphatase. Newborn screening test shows elevated level of 17-hydroxy progesterone. Gene panel analysis shows homozygous, likely pathogenic variant of CYP21A2 gene. USG Abdomen & Scrotum shows, B/L Congenital adrenal hyperplasia, Left testes is visualised at the inguinal region but Right testes is not visualised. **Provisional Diagnosis:** Congenital adrenal hyperplasia. **Etiology:** Mutations in genes (CYP21A2) that codes for 21 Hydroxylase enzyme. **Pathogenesis:** Autosomal Recessive Disorder. **Management:** DBF 2nd hourly; IVF D1/2 NS maintenance. Inj. Hydrocortisone 5mg $\frac{1}{4}$ tds; T. Amlodipine 2.5 mg $\frac{1}{4}$ th OD

India's second case of babesiosis reported in Malabar Medical College, Calicut

Vindhya M, Dr. Shima K

Department of Pathology, Malabar Medical College, Calicut Kerala

History: 44 y/o female, presented with complaints of high grade, intermittent fever for 5 days with chills and rigor and breathlessness associated with cough and expectoration for 3 days. Three of her family members had history of fever. She is a known case of myotonic dystrophy for the past 6 years. **Clinical Features:** On examination Pallor present, frontal balding, sternocleidomastoid wasting, mild ptosis and hatchet facies was present. Neurological examination showed percussion myotonia, distal muscle weakness, neck muscle weakness. On auscultation bilateral rhonchi present. CBC Findings showed Marked Leukopenia, Anemia and elevated ESR. CRP was reported positive and ALP levels were also high. Routine Urine Examination showed the presence of Pus Cells and RBC. Peripheral Smear picture indicated the presence of intracellular parasites, which is characteristic of Babesiosis. Microcytic hypochromic anemia was also noted. **Provisional Diagnosis:** Babesiosis. As of now, there was only 1 Babesiosis case reported in India, from Gwalior in 2004. This would be the second case in India. **Etiology and Pathogenesis:** Babesiosis is a Zoonotic Disease that is transmitted from vertebrates to humans through the bite of a tick. Human infection with Babesiosis is primarily due to *B. microti*. The ticks ingest Babesia from the host during feeding, multiply the protozoa and concentrate them in their salivary glands. When they feed again on a new host they inoculate it with Babesia. Entering the host's bloodstream, the parasite infects RBCs, produces trophozoites and damages the membrane. This will result in fever and hemolytic anemia. When diagnosed early, babesiosis is completely curable on administering an antibiotic regimen. **Management:** The patient was treated with Inj. Clindamycin and Azithromycin along with other supportive measures. Patient improved over time and was discharged after a period of 6 days.

An interesting case of Menkes Kinky hair disease

Yashwanthi Arasu, Prof Dr. Udhaykumar N

Department of Paediatrics, Sri Ramachandra Institute of Higher Education And Research

Introduction: Inborn errors of metabolism are individually rare, but collectively common. Metal disorders are largely under recognised even among IEM. We report a child who presented with developmental delay and infantile spasm and was diagnosed to have Menkes kinky disease. **History:** A five-month old male, first born of non-consanguineous marriage presented with chief complaints of cluster of spasms for 1 week at 3months and greying of hair since then. The parents had concerns with his developmental milestones. These spasms consisted of left sided turning of head with facial twitching lasting for 10-15 mins, multiple episodes a day. On prednisolone, no further spasms. He was born by caesarean-section with birth-weight of 2.7kg, cried at birth and admitted in neonatal ICU for respiratory distress, hypocalcemia and low vitamin D3 levels for which supplements were taken. The child is now on breastfeeds. **Clinical Features:** On examination, he was lethargic, not dysmorphic, weighing 7 kg (25th centile), with length 66cm (50th centile) and head circumference 43cm. His vitals and systemic examination were normal. He had hypotonia, dry, grey, hypo-pigmented, kinky hair, light coloured and dry skin with white hypo-pigmented macules over back. Developmental milestones corresponded to less than 3 months. His initial investigations showed normal TMS, GCMS, normal biotinidase activity, ceruloplasmin levels (<6mg/dL) and copper levels (96.9µg/dL). Subsequent copper levels were 67.5µg/dL and a week later 64µg/dL after giving copper histidine injections. Light microscopy of hair showed pili torti and no trichorrhexis nodosa/monolethrix. EEG showed hypsarrythmia. MRI showed fronto-temporal cerebral and cerebellar atrophy and intracranial arterial tortuosity. **Provisional Diagnosis:** The infant was clinically diagnosed with Menkes Kinky Hair Disease based on clinical findings, MRI findings, response to copper histidine injections and dose adjusted with serial serum copper measurements. After counselling, whole exome sequencing was done which showed a hemizygous pathogenic variant in ATP7A c.3802-1G>A confirming the diagnosis.

Isolated Duodenal Injury

Yugandhi. G.P, Dr. N. Deivanathan, Dr. Sangaiyya Raja

Department of General Surgery, Government Medical college and Hospital, Karur

History: A 25 year old male sustained fall from a height of around 15 feet, was presented to the Emergency room of GMCH, Karur around 4 hours after the incident with complaints of abdomen pain and no complaints of distension or breathlessness. After 24 hours the patient complaints of increasing pain in the right lower abdomen.

Clinical Features: On primary survey, the abdomen was soft & not rigid & imaging revealed no evidence of pneumoperitoneum or pneumothorax or free fluid in the abdomen & the solid organs appeared normal. On reimaging with CECT & Ultrasonogram free fluid was noted in the abdomen & solid organs appeared normal.

Provisional Diagnosis: Isolated duodenal injury **Etiology and Pathogenesis:** Duodenal injury (DI) accounts for approximately 3%-5% of all abdominal trauma with an incidence of 25% occurring as a consequence of blunt abdominal trauma (BAT). Isolated duodenal injuries (IDI) are rarely reported. The recognition of DI can be challenging due to its retroperitoneal location. This may lead to misdiagnosis or delay in the diagnosis and treatment; increasing the mortality rates up to 40%. The sudden rise in the intraabdominal pressure due to external compression causes rupture of the hollow viscous in accordance with the Boyle's Law. **Management** :Primary closure of duodenal injury was done followed which tube duodenostomy, Gastrotomy with Pyloric exclusion, Gastro-Jejunostomy, Jejunostomy, and Feeding Jejunostomy was done. Patient was started on feeding jejunostomy feeds from 2nd POD. Biliary leak was evident from 8th POD which settled with controlled fistula management and nutritional support. Patient was comfortably discharged on 45th Post Operative Day.

Haemoglobin SD: Our experience

Dr. Rangeshkumar, Dr. Sanjeev, Dr. Balamma Sujatha

Department of paediatrics, Saveetha Medical College and Hospital, Chennai.

History: A 11year old girl, second born to non-consanguineous marriage, began experiencing joint pains and swelling from 18months of life. She was hospitalised to our facility at the age of 5 with wrist joint arthralgia, pallor, and moderate splenomegaly. CBC-mild anemia with normocytic RBC. HPLC was done which showed Hb SD Hb D 40%, Hb S 23.2 %, Hb A 16.7%, Hb A2 2.9%, Hb F 17%.She was started on folate supplements and Hydroxyurea tablets. She had multiple pain crisis requiring admissions and symptomatic care. She never required blood transfusion.

Clinical features: Child now presented with complaints of pain and swelling in the left hand for the past 3 days with mildly restricted movements. Local examination: swollen left wrist and hand, warmth (+), tenderness (+), mild erythema (+). After initial conservative management, she developed fever with extension of pain and swelling to forearm with mild discoloration of finger tips.Hence we considered other differentials like cellulitis, osteomyelitis, and venous blockage. **Provisional diagnosis:** Sick cell disease. **Etiology and pathogenesis:** Sick cell disease (SCD) is caused by mutations in the genes encoding for beta-globin chain of haemoglobin. Hemoglobin D-Punjab,is due to substitution of glutamine for glutamic acid in the beta-globin gene. Heterozygous Hb D is rare and presents with mild to moderate anemia and splenomegaly. In this case report we describe a 12 year old child with heterozygous Hb-SD inheritance. **Management:** Further workup by venous doppler, X-Ray and USG of left wrist were found to be normal. CRP and ESR were elevated and was hence started on amoxiclav suspecting cellulitis /osteomyelitis. Blood culture was reported sterile. Gradually the swelling, pain and fever reduced. However, 6 days later she presented again with painful and swollen left wrist and forearm. MRI of left wrist was done and revealed features of mild septic arthritis, following which I&D was done and pus culture was sent. It grew Salmonella species and she was started on ceftriaxone. She had good clinical response.

Mineralising Angiopathy

Dr. Benazer H. Sait, Dr Benjamin Sagayaraj

*Department of Paediatrics,
Saveetha Institute of Medical and Technical Sciences, Chennai.*

History: An 8-month-old developmentally normal boy, born to non-consanguineous parents, with uneventful perinatal history. **Clinical features:** complaints of sudden onset of paucity of right upper and lower limbs movements for one day, and two episodes of right focal seizures after the onset of weakness. There was history of trivial fall on to the ground while playing inside the house, just prior to the onset of weakness. There were no external injuries or loss of consciousness, vomiting, and ear bleed following the fall. Neurological examination revealed hypotonia and weakness of right upper and lower limbs (power 2/5) with diminished reflexes. Other systemic examination was normal. **Provisional diagnosis:** Considering the history and examination findings, a provisional diagnosis of Mineralising angiopathy was made.

Etiology and Pathogenesis: Mineralising angiopathy of the lenticulostriate arteries causing acute arterial ischemic infarct, following a minor trauma is a rare entity observed predominantly in infancy. The characteristic features include, rapid onset of neurological deficits mainly hemiparesis following a trivial trauma, occurrence in previously normal children of 6-18 months of age, CT brain evidence of mineralization of lenticulostriate vessels, with a good prognosis and recovery. The exact pathogenesis for the same is not yet fully delineated. A condition called sonographic lenticulostriate vasculopathy (SLV) was observed in neonates, which is known to occur in 0.4% of all live-born neonates and in 1.9% to 5.8% of ill neonates. SLV is expected to resolve over a period of time. For reasons that are not fully understood, these SLV persists in few infants, which may predispose to mineralizing angiopathy. **Management:** The child was started on aspirin and leviteracetam. There were no further seizures and he was discharged after 3 days of hospital stay. CT Brain showed bilateral basal ganglia calcification and MRI brain showed acute infarct involving the left lentiform nucleus in the basal ganglia.

An Interesting Case of Autoimmune Encephalitis

**Dr Gayathri E, Dr Joshua Rajan, Dr Shami Kumar,
Dr Sanjeev Rathnavel, Dr Vasanth, Dr Balamma Sujatha**

*Department of Paediatrics,
Saveetha Institute of Medical and Technical Sciences, Chennai.*

History: 15 yr old girl presented to OPD with history. **Clinical features:** lethargy, mutism and abnormal involuntary of 3 day duration. Child had seizures 10 days back and was investigated and discharged with anti epileptic medication after which she developed the above mentioned complaints. **Etiology and Pathogenesis:** Autoimmune encephalitis is being increasingly recognized in children. Children present with a polysymptomatic presentation including behavioral changes, psychosis, sleep disturbances, mutism, seizures, movement disorders, memory impairment as well as other neurocognitive deficits. Anti-NMDAR encephalitis is the most common form. Diagnosis is based on suggestive history and ancillary investigations including magnetic resonance imaging, cerebrospinal fluid analysis, and serology for autoantibodies. Treatment is based on immunomodulation of the acute episode followed by maintenance therapy, with earlier initiation being associated with better outcomes. Prognosis depends on the type of clinical syndrome. **Provisional Diagnosis:** Right from the beginning our provisional diagnosis was a form of encephalitis. After the results of the auto-immune panel, the final diagnosis of autoimmune encephalitis was proven. It was further established by her response to the IVIG therapy. **Management;** MRI Brain showed normal study. EEG was showed diffuse slowing. We did CSF analysis and found to be within normal limits with no growth in CSF culture Provisionally patient was started on steroid therapy. She did not respond to steroids. CSF sample sent for autoimmune panel showed NMDA antibody positive.

A Case Series of Penetrating Rectal Injuries

Dr. Sathyan R.A, Prof. Dr. Sanmugasundaram P N,

Professor and Head of Department General Surgery

Dr. Pankaj Surana, Associate Professor, **Dr. Nappa Madusudhan**, Assistant Professor

Dr. Lohit Sai, Assistant Professor, **ESIC Medical College & PGIMSR.**

Introduction: Penetrating rectal injuries are most common cause of rectal trauma accounting to 95% of cases, out of which stab wounds constitute of around 3%- 5% of injuries. The anatomic nature of the rectum with its intra and extra peritoneal segments leads itself to unique circumstances when it comes to management and treatment. **Objective:** To present work place penetrating rectal injuries and Bull gore injury. **Methods:** **Case 1:** A 57 year old male patient mechanic by occupation with no co morbidities presented with alleged history of air insufflation via anus through air compressor by friend in workplace following which developed severe abdomen pain and abdomen distension . On examination pulse:120 bpm, tenderness in left iliac fossa, abdomen distended with loss of liver dullness obliterated, CECT abdomen : large pneumo peritoneum, patient was resuscitated and taken up for exploratory laparotomy after consent. Findings: Recto sigmoid junction perforation, Procedure done: Segmental resection and anastomosis. **Case 2:** A 40 year old female patient presented with Bull gore injury in perineal region., On examination pulse 125 bpm , tenderness in left iliac fossa, grade 4 perineal injury ,patient was resuscitated and taken up for exploration : primary closure of perineal injury done with Diagnostic laparoscopy which was normal. **Case 3:** A 20 years old male patient sustained a rectal perforation injury by accidental fall over an ironrod at his workplace presented with severe abdomen pain, on examination vital signs stable, diffuse tenderness over abdomen ,grade 4 perineal tear, CECT abdomen :Rectal perforation, patient was resuscitated and taken up for emergency exploratory laparotomy, procedure done: pelvic abscess +primary closure of rectal perforation +primary closure of rectal perforation +diversion loop colostomy +perineal tear repair. **Results:** All three patients are doing well postoperatively. **Conclusion:** Rectal injuries are complex in nature due to its anatomy the possibilities of missing a small perforation is high , hence thorough laparotomy or diagnostic laparoscopy with examination of all parts of rectum is mandatory in case of complex rectal injuries.

Giant benign phyllodes tumor mimicking as malignancy- a rare case report

**Dr. Vijayanand .S, DR. Shanmugasundaram P.N,
Dr. Bhanumathi, Dr. Madhusudhan, Dr. Balasubaramaniyam**

Department of General Surgery, ESIC Medical College and PGIMSR, Chennai

History: A 38-year-old female presented with c/o lump in right breast for 1 ½ years which had progressed to cause ulceration of skin which bleeds on touch for 3 months.

Clinical Features: On examination a fungating lump of size 10*10cm involving the entire right breast causing disfigurement with loss of nipple areolar complex, not attached to the underlying structures. Axillary nodes are palpable (cT4bN2Mx). FNAC: Invasive ductal carcinoma (outside path report), FNAC: POSITIVE for malignancy (In houses), TRUCUT BIOPSY: Features are consistent with stromal neoplasm, PET CT: Features suggestive of right breast primary tumor with ipsilateral axillary lymph nodal spread. **Provisional diagnosis:** Giant Benign Phyllodes Tumor Mimicking as Malignancy. **Etiology and Pathogenesis:** Phyllodes tumors are rare fibroepithelial neoplasms divided into 3 histological grades according to their potential for malignancy. Low grade tumors are usually smaller with slower evolution. We hereby encounter a case of giant benign phyllodes tumor with all clinical and radiological findings matching a malignant aggressive tumor. **Management:** Right simple mastectomy with axillary lymph node dissection+ Primary closure of wound. Post operative HPE: Benign phyllodes tumor, Axillary nodes are free of malignant cells.

Ileo- Ileal intussusception in adult

Ranjini P, Dr Deivanathan, Dr P. Sangaia Raja

Department of General Surgery, Government Medical College, Karur

History: 22yr old male patient presented with abdominal pain and vomiting for the past 4 days. **Clinical Features:** On examination abdomen was soft, tender and not distended. USG and CT findings showed target sign or doughnut shaped mass, which confirmed the diagnosis as intussusception. Other investigations and anaesthetic assesment were done. **Provisional Diagnosis:** Adult intussusception. **Etiology and Pathogenesis:** Adult intussusception is a rare disorder that represents only 1% of intestinal obstructions and nearly 5% of all intussusception cases. It produces non - specific symptoms like abdominal pain, nausea, vomiting, etc.. which when not diagnosed properly lead to high mortality rate. **Management:** Under aseptic precautions, midline laparotomy was done. Peroperatively 4-6cm of intussuscepted ileal segment was noticed which was resected and end to end anastomosis was done. On laparotomy the lead point was found to be Meckel's diverticulum. Intraoperative and postoperative periods were uneventful. Post operative HPE report was Meckel's diverticulum with ectopic pancreatic tissue.

Clinical Medicine Workshop

*Workshop Facilitator: **Dr. Vijayaprasad G***

Assistant Professor, Department of Community Medicine

One of the basic skills required of a medical graduate is the ability to perform clinical reasoning and analysis based on the information gathered from the clinical encounter. The clinical reasoning process involves a thorough history taking, a detailed physical examination, gathering more information in the form of laboratory tests and imaging and piecing this information together to arrive at a clinical diagnosis. Further clinical reasoning also involves identifying the most appropriate treatment for the patient. In this workshop, we will systematically approach the following steps in a typical clinical encounter

1. History taking	5. Putting the various components of clinical data together to develop differential diagnoses
2. Physical Examination	6. Counseling the patient and helping them understand the illness
3. Interpretation of laboratory values	
4. Reading common clinical images	

We will introduce you to the clinical reasoning process using case studies, stories, simulated patient interactions and videos.

Objectives of the Workshop

At the end of the workshop the participant will be able

- To describe the importance of each element in the clinical data gathering process
- To piece together clinical data to arrive at a differential diagnosis
- To describe the challenges in the clinical data gathering process and clinical reasoning

Workshop Outline

Time	Session	Facilitator
9.00 – 9.30	Introduction to clinical reasoning process	Interactive lecture - Dr. Vijayaprasad
9.30 – 10.15	Group activity to fulfil specific clinical tasks – history, physical examination, interpretation of lab values, reading clinical images	All participants
10.15 – 11.00	Debriefing and clinical reasoning	Facilitated discussion - Dr. Vijayaprasad

ECG Workshop

The ability to quickly and accurately interpret a 12 lead ECG is an important part of the routine and emergency patient care for a wide range of healthcare professionals. The Department of General Medicine, ESIMC and PGIMSR, Chennai is proud to conduct an ECG workshop for medical students to enable them to understand the basics of ECG and learn how to analyze and interpret an ECG - A Clinician's basic and important diagnostic tool.

A hands-on training with real life clinical scenarios will be provided to the participants.

Our goals of this program is to make the students able to:

1. Understand the main basis of the heart's electricity
2. Identify and understand the basics of ECG
3. Learn how to take a 12 lead ECG
4. Reporting ECG in adequate and clinical manner
5. Determine the normal ECG and normal variations on healthy individuals
6. Diagnose and interpret ECG changes in Myocardial Infarction, arrhythmia, and dyselectrolemia.

Introduction to ECG workshop:

Outline of workshop

Inauguration of the workshop by Medicine HOD and Chairperson of workshop:
Dr. K.V. Baliga

1. Introduction to ECG: Dr. Seshadrinathan, Consultant cardiologist, 15 min
 - Electrical activity of heart
 - Lead placement
 - Normal waves
 - Artefacts in ECG
2. Approach to Acute MI: Dr. Hariprasad S, 15 mins
3. Approach to Arrhythmia: Dr. Vijayaprakash M, 15 min
4. Dyselectrolemia and ECG changes: Dr. Abarnadevi S, 15 min

Hands on Training (30 students/ 6 batches of students each, clinical case scenario)

Station	Topics	Faculty
1.	Normal ECG - How to take ECG	Dr. Rajesh R.
2.	Acute MI - STEMI - NSTEMI	Dr. Hariprasad S.
3.	DYSELECTROLEMIA I - HYPERKALEMIA - HYPOKALEMIA	Dr. Abarnadevi S.
4.	ARRHYTHMIA - SVT - AF	Dr. Vijayaprakash M.
5.	DYSELECTROLEMIA II - HYPOCALCEMIA	Dr. Samuthiravel S.
6.	BRADY ARRHYTHMIA	Dr. Aarthi N.

Surgery Workshop

The Department of Surgery, ESIC Medical College and PGIMSR, beams with pride to conduct this workshop on "Sutures and Knots"

The intricate art of suturing is at the heart of surgery. The current National Medical Commission guidelines recommend that all Indian Medical Graduates should be competent in suturing.

With respect to this, participants will learn how to handle and manipulate suture materials and instruments. Our surgeons will teach how to tie two types of sutures: Simple and Mattress. Students will be divided into subgroups to provide individual attention.

This workshop will provide the learner comprehensive knowledge on basic sutures and knotting techniques. Suturing is a must for all medical practitioners and through this workshop we intend to bring out the dexterous physician in you.

Antimicrobial resistance: the global threat

Antimicrobial resistance (AMR) has emerged as a major public health menace worldwide. The impact of AMR includes increased rate of treatment failure ultimately resulting in rising mortality, morbidity and healthcare costs. The bacteria

responsible for common infections develop resistance to a particular antibiotic soon after the addition of it to the market. The world is in danger of entering into an era where no antibiotics will be available in the future for life-threatening infections. The solution to tackle AMR menace is absolutely essential at the present time. Information, Education and Communication (IEC) activities about judicious use of prescribed antibiotics among general public and implementation of antimicrobial stewardship (AMS) activities in all healthcare settings are the need of the hour.

Misuse of antibiotics, improper infection prevention, and control measures are underpinning the development of AMR in the hospital setting. Hence, promoting better hygiene, ending the overuse of antibiotics, rapid testing to determine bacterial infections, delayed antibiotic prescriptions and continued education can help to tackle AMR.

Spirometry

The workshop 'An approach to respiratory disorders through spirometry' aims to provide an insight about the use of spirometry in diagnosis and management of chronic respiratory illness.

Spirometry is a useful tool in the assessing lung function which will enable a clinician to make an early diagnosis of a pulmonary disorder, assess its severity, evaluate the response to treatment and monitor the prognosis. Spirometry is also used to assess the respiratory status of a patient before anaesthesia and to evaluate the physical fitness of a person for jobs involving strenuous exercise or working at high altitude.

The workshop participants will be briefed on the various pulmonary function tests with special focus on spirometry. The various physiological parameters measured using a spirometer like forced vital capacity, slow vital capacity, forced expiratory flow, peak expiratory flow rate, maximum voluntary ventilation will be discussed. Case scenarios with spirometry data will be presented and participants will be encouraged to make an interpretation of the data to arrive at a diagnosis of a respiratory disorder. The various manoeuvres for recording the parameters will be demonstrated to the participants of workshop in groups. Hands on training will be

provided and the participants will be taught to make spirometry recordings and analyse the data.

Minerva

Beta Catenin, ESIC's enthusiastic quiz club, is proud to host you for the second iteration of 'MINERVA'- our intercollege quiz. Named after the Roman goddess of wisdom, Minerva is an opportunity for you to test your time management and team coordination skills. For the past month, we have been working hard to provide you a fruitful experience here. Gastroenterology, the topic for the quiz, is budding but ancient. Diarrhea has been a thorn in our side for centuries, even having been studied and written about by Hippocrates. The modern age witnesses the emergence of newer diseases brought on by our changed life styles, like obesity and GERD, as well as newer baffling therapeutic modalities.

With this in mind, we have engineered several creative rounds to ensure everyone enjoys the process of sharing knowledge.

Debate

ESIC Medical College's debate Club, 'The Speakers Collective', is proud to organise this year's debate for the inter college event Wissendurst.

We believe debating plays a very important role in the life of a medical student. It boosts your critical and analytical thinking. Since the medical field banks on communication, debating helps to improve your speaking skills and also helps you be a voice of reason. You learn to adapt to time sensitive situations and most importantly be attentive to the words of the speaker, an analogy to listening to the patient's needs.

We arrived at the topic after much deliberation and discussion, and it is from these sessions that we broadened our horizons and stepped outside of the box. We hope that the upcoming debate event proves to be as thought provoking and enriching for the participants. We wish luck to the participants!
